AGRICULTURAL OUTLOOK

June 1987

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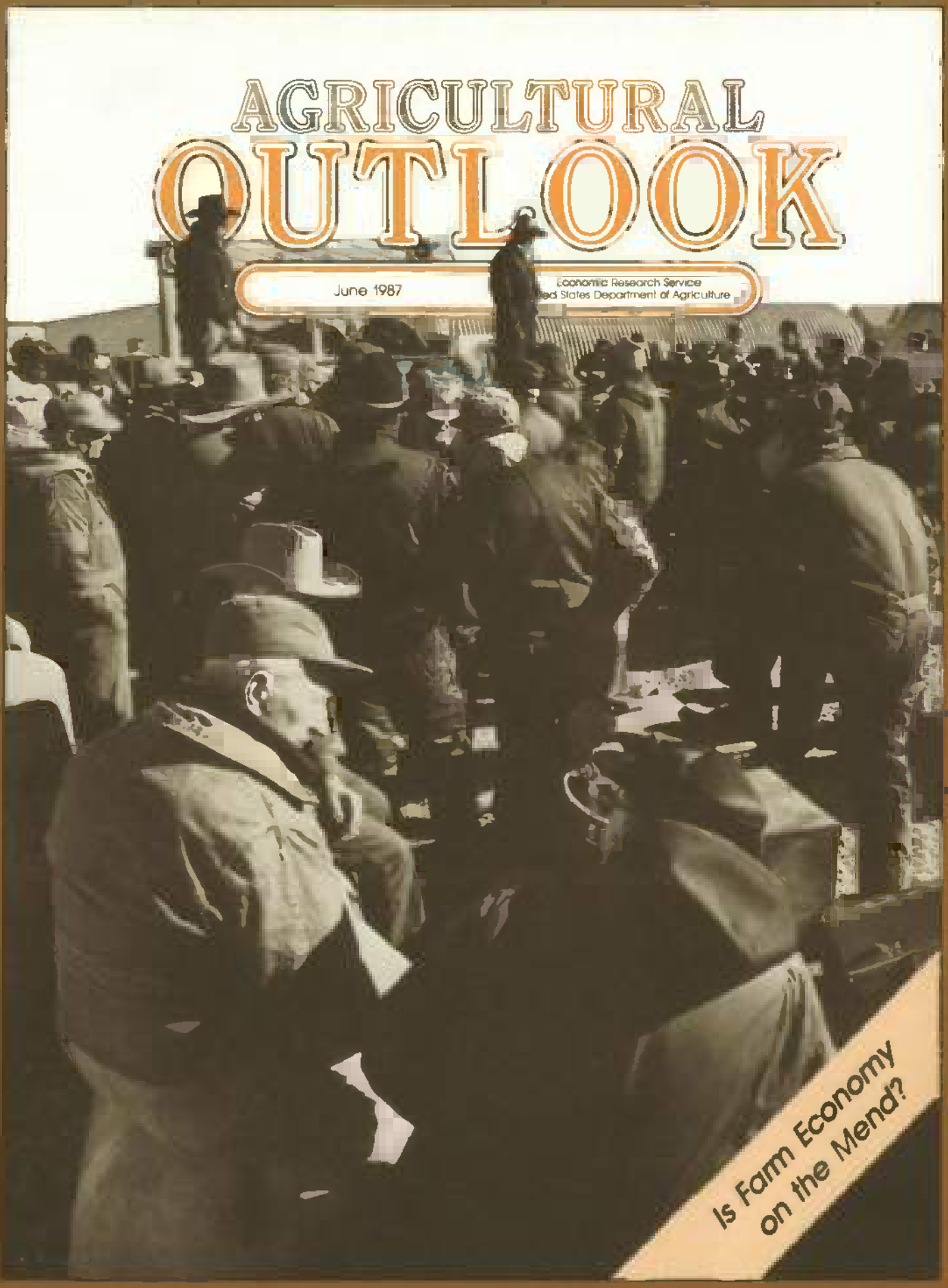

Is Farm Economy on the Mend?

AGRICULTURAL OUTLOOK

June 1987/AO-131

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In Brief . . . News of Farm Income, CURE Bill, World Grain Market

Farmers' net cash income is expected to increase during 1987 to $48-$52 billion, perhaps reaching a record. A gain in income for livestock farms will more than offset a decrease for crop farms.

Cash receipts are continuing to fall--5 to 7 percent this year--caused by reduced acreage for most program commodities and lower crop prices. The drop in receipts is partially offset by direct Government payments, which are expected to set a record.

There are signs that a broader financial turnaround has begun in the farm sector. Increases in returns on assets and equity, significantly reduced interest expenses, and growth in net income among most farm enterprises indicate important financial stabilization processes are now occurring. Farmland values could also stabilize in 1987, compared with an 8-percent decline last year.

With land purchases at early 1987 prices, 11-percent interest, and a 25-percent downpayment, most corn and soybean farmers in the Midwest could meet all cash expenses. By contrast, in 1984, cash expenses on those farms exceeded receipts by over $40,000. Farmers with annual sales between $100,000 and $500,000 per year may benefit most from the financial turnaround because they are large enough to have efficient operations yet are small enough not to be discouraged by the Government payment limitation. Despite recent improvements, farmers trying to pay debts taken on when land prices and interest rates were higher, probably are still having financial difficulties.

Farmers' expenditures for tractors are down from the 1981 peak, but may pick up again during the rest of the

decade. Expenditures rose rapidly during the export boom of the 1970's, but have been discouraged so far during the 1980's by declining exports, falling commodity prices, reduced equity, and high costs of credit. With lower financing charges, improving debt/asset positions, and continued reductions in the real cost of tractor power, tractor expenditures are likely to increase in coming years.

Total U.S. meat supplies are expected to remain large, and likely will approach record levels in second-half 1987, with expanding hog inventories and continued increases in poultry production. These gains will more than offset declining beef supplies. Producers are placing large numbers of cattle on feed this spring, and cow slaughter is lower as the effects of the Dairy Termination Program wane. Per capita supplies of eggs are about the same as last year and prices are down.

The livestock and poultry sectors continue to adjust to lower feed prices and improved returns. Corn prices averaged $1.49 a bushel in mid-April, nearly 35 percent below a year earlier. Soybean prices averaged $4.82 a bushel, down 6 percent. A record hay crop was harvested in 1986, leading to record hay stocks going into this past winter. Hay prices in mid-April averaged $62.90 a ton, down nearly 5 percent from a year earlier. Lower feed costs are stimulating either increased marketings or inventory buildup which will result in increased future marketings. Receipts from rising meat supplies at lower prices may fall, but probably by less than the decrease in feed costs. Net cash income is rising in 1987 for producers of meat animals, dairy, poultry, and fruits and vegetables, but down for producers of cash grain.

Grain production over the last 20 years has been increasing faster in third world countries than population, with much of the increase coming from rising yields. But consumption per capita was rising more rapidly than output. If economic development continues to support increasing consumption, production will fall further behind use. Consequently, a third world already dependent on cereal imports may become even more so in the future.

Congressional hearings took place in mid-May on the CURE (Consumer Rail Equity) bill. The bill, if enacted, would amend the 1980 Staggers Rail Act. One focus of the CURE bill is smaller agricultural shippers who were protected by rail regulation before 1980. Congressional backers of the bill appear to believe that the Interstate Commerce Commission has afforded inadequate safeguards to the shippers most susceptible to monopoly pricing by railroads since 1980. In the words of the CURE bill drafters, the intent of the legislation is to "restore a sense of balance to the Staggers Act...."

Agricultural Economy

Surpluses May Force Policy Changes

Domestic agricultural policies have usually not been subjects of international negotiations. For years, Japan's policy of supporting domestic rice prices, the EC's use of variable levies, and the United States' direct income support payments to farmers were not strongly challenged by other governments.[1] But now, domestic farm policies are the subject of international talks, as farm surpluses mount, prices are depressed worldwide, the costs of subsidies climb, and international disputes multiply.

For the first time, agricultural policies are on the agenda in GATT (General Agreement on Tariffs and Trade) negotiations. The current Uruguay Round of talks began last September. In these talks, the United States, along with such countries as Australia and Argentina (who also claim not to subsidize their production), is working to remove export subsidies and barriers to farm trade. Moves to reduce both trade restrictions and subsidies for agriculture were also endorsed at the recent ministerial meeting of the Organization for Economic Cooperation and Development.

[1] There are exceptions. For example, the Section 22 waiver allowing the United States to restrict agricultural imports has been discussed in prior GATT rounds.

One U.S. aim is to alter farm programs so subsidy payments are not linked to production. The EC and Japan want to continue to protect their domestic producers by using variable import levies and, especially for the EC, export subsidies.

Agriculture also figures prominently in other talks and bilateral disputes: U.S.-Canada free trade talks, U.S. opposition to a vegetable-oil consumption tax in the EC, Thai opposition to the U.S. marketing loan for rice, sugar exporters' anger over reduced U.S. import quotas, and perennial U.S. efforts to negotiate wider access to the Japanese and other East Asian markets.

Domestic farm policies have become the subject of international talks because governments are maintaining production incentives that are too high given current world consumption. Further, multicountry agreements are needed because no country can afford to change its policies alone. If any one country unilaterally reformed its policies, the farmers of that country would be subjected to subsidized competition from others.

Between 1980/81 and 1986/87, world coarse grain production rose 15 percent, exceeding consumption every year except 1983, the year of PIK and drought; world wheat production grew 20 percent, exceeding consumption every year since 1981/82.

As a result, by the end of 1986/87, both world wheat stocks (148 million metric tons) and world coarse grain stocks (220 million metric tons) will be record highs, and each will represent more than one-fourth of a year's use. Meanwhile, prices are falling. In 1982 dollars, f.o.b. Gulf Coast wheat prices dropped from $5.58 a bushel in 1980 to $2.79 in 1986, and the slide is continuing in 1987.

U.S. Outlays Up Eightfold; EC Spending Double

As prices have dropped, the spread between the government-administered prices received by farmers and actual market prices has grown. In 1980, the target price for wheat in the United States was 28 cents a bushel below average farm prices; this season, the target price is about $2 above.

In the European Community, the gap between the wheat threshold price and import prices for a common type of

U.S. & EC Outlays for Farm Price & Income Support

Fiscal years*	United States	European Community
	$ bil.	$ bil.	Bil. ECU
1977	3.8	8.0	7.0
1980	2.8	16.6	11.9
1985	17.7	15.7	20.6
1986	25.8	21.8	22.3
1987E	24.6	26.2	23.2

*U.S., October-September; EC, January-December. E = estimated.

Sources: Agricultural Situation in the Community, and USDA Budget Summaries, various issues.

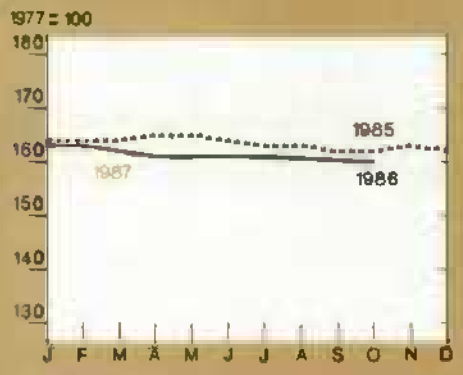
Gap Between World Prices & Support Prices in EC, Japan, U.S.

Crop years 1/	Wheat U.S Target price	Wheat U.S Farm price	Wheat EC Thres-hold price	Wheat EC CIF Rotter-dam 2/	Rice Japanese Gov't pur-chasing price	Rice World price 3/	Sugar U.S. loan rate	Sugar World price 4/
	$/bu.		ECU/mt		1,000 yen/mt		Cents/lb.	
1980	3.63*	3.91	219	176	295	110	--	24.8
1981	3.81	3.65	238	186	296	90	16.75	10.4
1982	4.05	3.55	259	191	299	68	17.00	7.6
1983	4.30	3.51	270	223	304	66	17.50	6.8
1984	4.38	3.39	268	226	311	57	17.75	3.7
1985	4.38	3.08	250	194	311	46	18.00	6.0
1986E	4.38	2.40	251	134	311	34	18.00	6.1

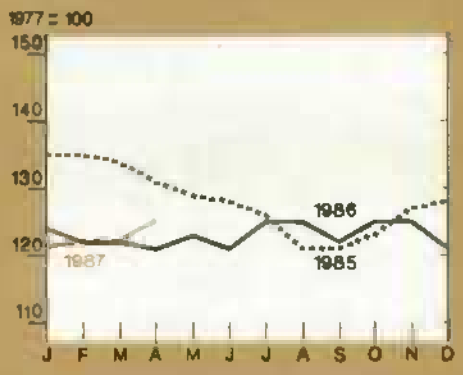
1/ U.S. wheat: June-May; EC wheat: Aug.-July; Japan rice: Nov.-Oct.; U.S. sugar: Sept.-Aug. 2/ U.S. Dark Northern Spring, 14 percent protein. 3/ White rice, 100 percent second grade, f.o.b. Bangkok. 4/ Raw sugar f.o.b. Caribbean. *Growers who planted in excess of their normal acreage were eligible for a target price of only $3.08 a bushel. E = market prices estimated.

Prime Indicators of the U.S. Agricultural Economy

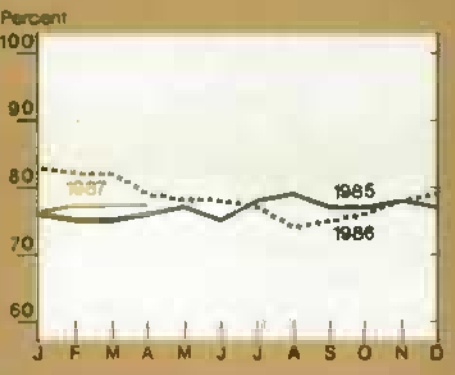
Index of prices paid by farmers[1]



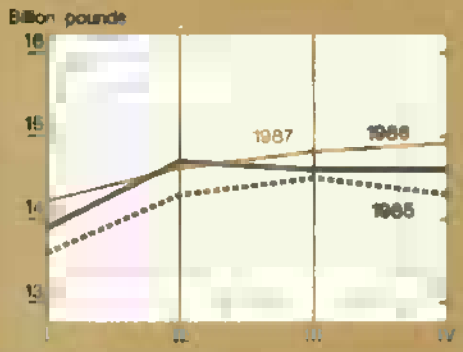
Index of prices received by farmers[2]



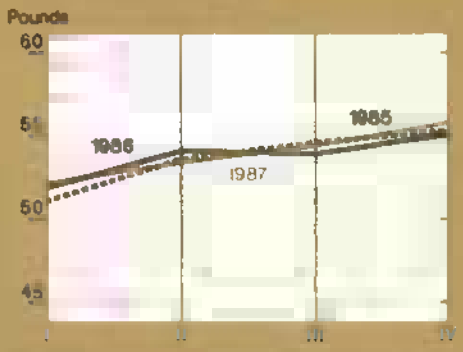
Ratio of prices received to prices paid



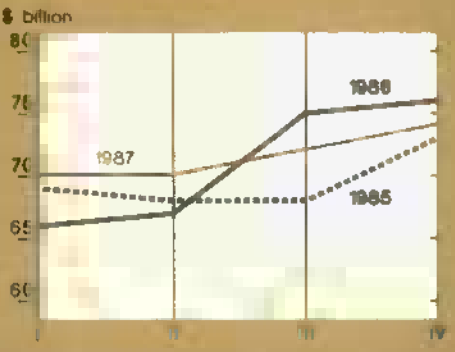
Red meat & poultry[3] production



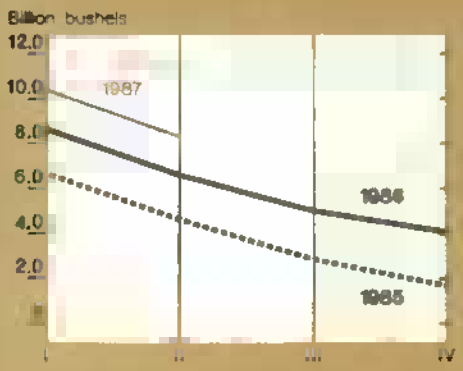
Red meat & poultry consumption, per capita[3,4]



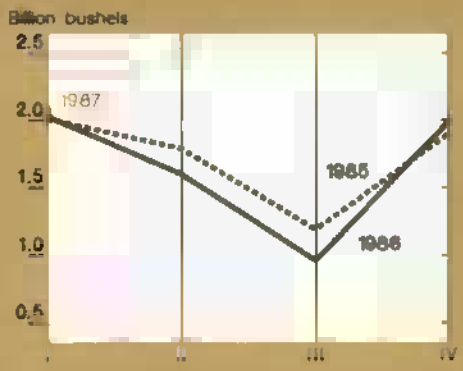
Cash receipts from livestock & products[5]



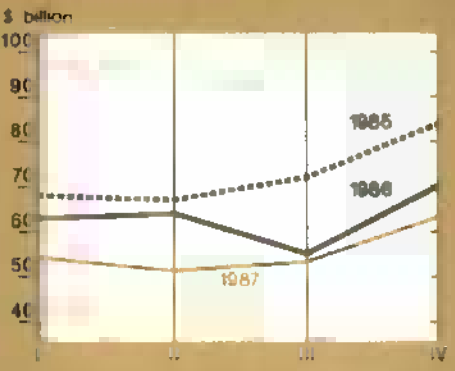
Corn beginning stocks[6]



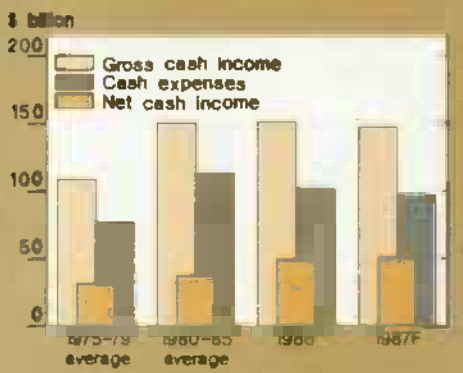
Corn disappearance[6]



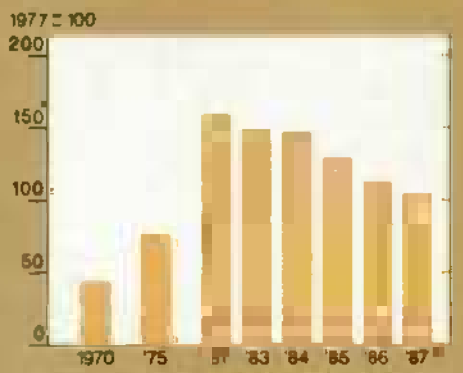
Cash receipts from crops[5]



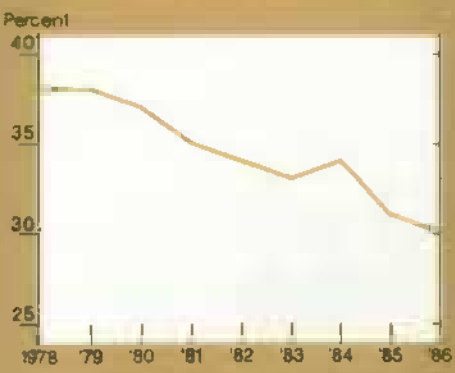
Farm net cash income



Farm real estate values



Farm value/retail food costs



[1]For commodities and services, interest, taxes, and wages. Beginning in 1986, data are only available quarterly. [2]For all farm products. [3]Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts. [4]Retail weight. [5]Seasonally adjusted annual rate. I = Dec.–Feb.; II = Mar.–May; III = June–Aug.; IV = Sept.–Nov.

wheat has grown from 43 European Currency Units per metric ton to 117. Because of these trends in many program commodities, government outlays for farm price and income support have grown roughly eight times since fiscal 1980 in the United States, and have nearly doubled in the EC.

In Japan, prices paid for rice since 1980 have risen even as world rice prices have dropped about 70 percent. U.S. sugar prices have also moved higher in the 1980's, although world prices have dropped. These examples illustrate that for many commodities, declining prices are not benefiting large groups of consumers and so cannot directly stimulate consumption.

Slow Changes Likely

Countries with farm-price support programs strongly resist fundamental farm policy reform, since farmers are hurt directly by benefit cuts but helped only indirectly by improved world economic performance. Nevertheless, as the costs of agricultural programs rise and world surpluses mount, the need for simultaneous reform in the major producing and consuming nations has become obvious.

The GATT process is tedious, and negotiations may continue into the 1990's. Still, gradual reductions in production and export subsidies, coupled with lower import barriers, could characterize future agricultural policies worldwide.

The United States is moving in this direction with the 10-percent target price reductions in the 1985 Farm Act. The EC, too, has taken steps in this direction by effectively cutting 9-12 percent off grain prices received by farmers for 1986 crops. Further small adjustments are being made for 1987. *[Terry Townsend (202) 786-3313]*

LIVESTOCK OVERVIEW

The livestock and poultry sectors continue to adjust to lower feed prices and improved returns. Corn prices averaged $1.49 a bushel in mid-April, nearly 35 percent below a year earlier. Soybean prices averaged $4.82 a bushel, down 6 percent. A record hay crop was harvested in 1986, leading to record hay stocks going into this past winter. Hay prices in mid-April averaged $62.90 a ton, down 5 percent from $66.20 a year earlier.

For meat and dairy producers, lower feed prices have resulted in reduced production costs, which are likely to continue for the next few years. Lower costs will help offset lower live animal prices in the second half of 1987 due to rising meat supplies. The rising meat supplies are partly induced by the lower feed costs.

Total meat supplies are expected to remain large and will likely approach record levels in second-half 1987, due to expanding hog inventories and continued increases in poultry production. These increases will more than offset declining beef supplies, particularly in late 1987.

Low beef production and relatively tight frozen pork stocks are boosting hog prices, but these are being tempered by large increases in poultry production. On balance, hog prices for the second quarter are expected to average in the low $50's.

Although pork production normally reaches a seasonal low in the summer, this summer a 9-percent year-over-year increase will boost supplies above second-quarter levels. The increase will probably keep hog prices in the same range as in the second quarter.

Pork production will increase both seasonally and year over year in the fourth quarter, when hog prices are expected to average in the low to mid-$40's. Beef production will be down, but the production drop's effect on price may be more than negated by increased poultry production.

Egg Prices Down

Prices for eggs in 1987 are expected to average below last year. The long-term trend in per capita egg consumption has been a slow but steady decline. In 1987, faced with lower production costs, producers are expected to have enough hens during the summer and fall to boost output 1 percent above last year, keeping per capita supplies near 1986.

As a result of the larger supplies, prices for cartoned Grade A large eggs in New York in the second half of 1987 may average 65-69 cents per dozen, down from 73 cents in 1986.

More eggs will likely be consumed in convenience foods, but as breaker eggs, which usually sell at a discount to shell eggs. Exports of eggs and egg products are likely to about equal last year, as large world supplies offset the weaker dollar. With the less expensive dollar, U.S. eggs are attractively priced in many countries.

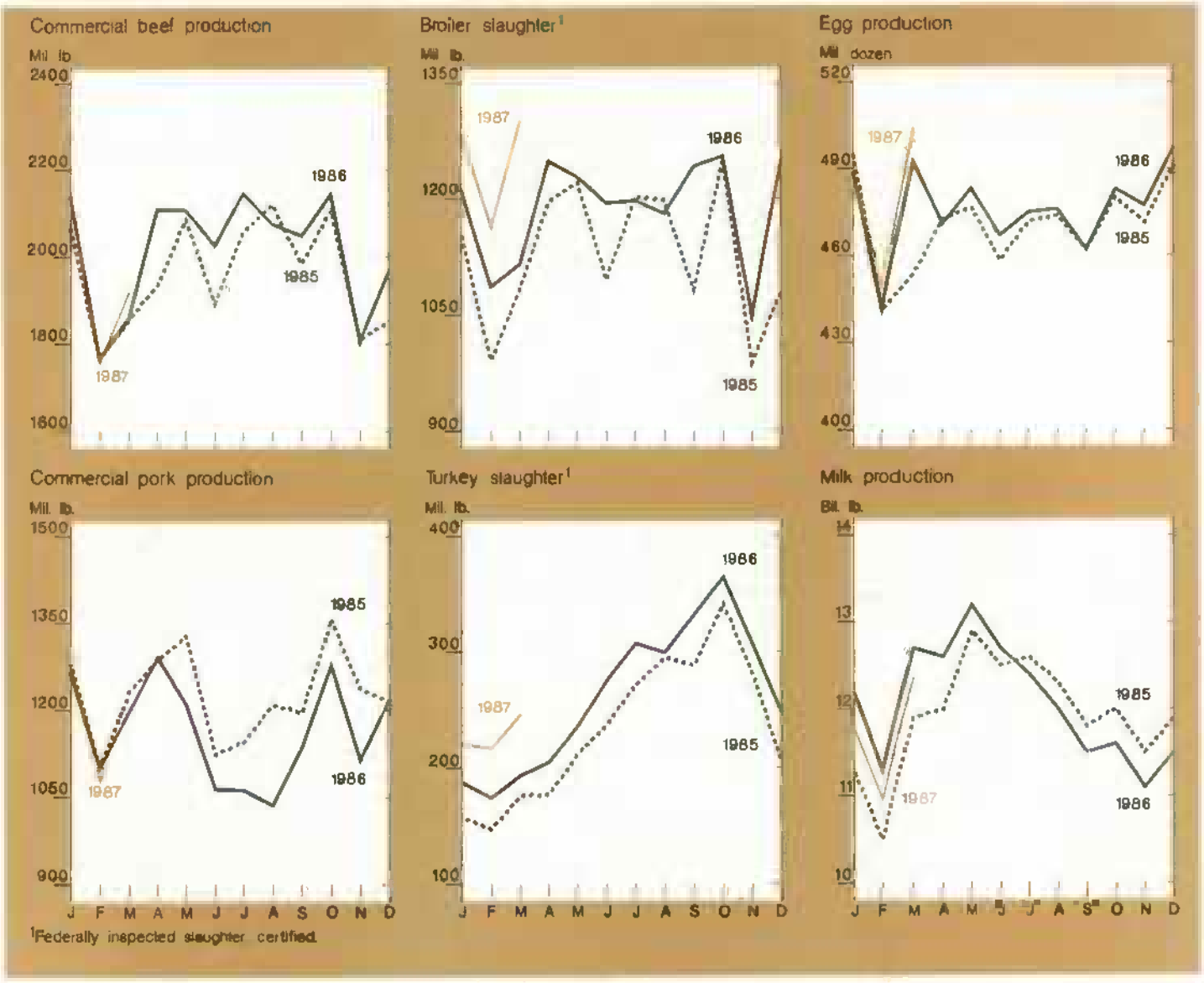
The demand for broilers appears to have shifted; first-quarter retail prices for whole chickens are above last year, although production is up 9 percent. USDA has no data on the amount of broilers marketed through retail stores as whole birds. But, if the extra production was not drained off for hotel, restaurant, institutional use, or convenience foods, more chicken must have been sold at a higher price than last year.

Broiler production in 1987 may be 9 percent above last year. Weekly reports on slaughter and monthly broiler chicks hatched indicate that second-quarter broiler meat output will be up 8 percent from 1986. The pullets placed in the broiler hatchery supply flock suggest second-half output will likely be 9 to 10 percent above last year.

January-March wholesale prices in the 12 cities for a composite of whole birds averaged 50 cents per pound, the same as in 1986. With the large increase in supply, broiler prices are expected to average in the upper 40's to perhaps 50 cents a pound through the summer, down from the heat-influenced 67 cents in 1986. Prices in October-December may slip to the mid-40-cent range, down from 56 cents last year.

Turkey Production To Set Record

Turkey production during 1987 is well on the way not only to being a record, but also to showing a record year-over-year increase. January-March output for federally inspected plants was up 20 percent over 1986, and the



[1]Federally inspected slaughter, certified.

number of poults placed that could be slaughtered in the second quarter was 22 percent above last year.

Much of the increase in first-quarter production was used to build cold storage stocks, but the excellent sales during Easter likely reduced turkey stocks to normal working levels. Thus, stocks are not expected to weaken prices.

During January-March, prices for commodity-pack hen turkeys in the Eastern region averaged 58 cents per pound, down from 62 cents in 1986. Wholesale prices for hen turkeys are expected to strengthen seasonally as stocks are rebuilt late in the second quarter. During the second quarter, prices may average in the upper 50-cents-per-pound range, down from 68 cents last year. Prices in the second half may average 65 to 70 cents, down from 79 last year.

Feedlot Placements High, But May Decrease

The number of cattle on feed on April 1 was 2 percent below a year earlier, with sharp drops in the heavier weight groups. Steers weighing over 900 pounds and heifers over 700 pounds were down 13 percent and 11 percent, respectively. Thus, feedlots are likely to remain current, and competition for the tighter supply is likely to hold fed cattle prices in the mid-to-upper $60's this spring.

Beef production in 1987 is expected to decline 5 to 7 percent from a year earlier, because continued large fed cattle slaughter will be more than offset by sharp drops in nonfed slaughter this spring and summer. Poor weather in late winter and lower inventories of cattle on feed are resulting in reduced fed cattle marketings and prices averaging over $70 per cwt.

Encouraged by these good returns and low grain prices, producers are placing large numbers of cattle on feed this spring. Combined with lower cow slaughter, as the effects of the Dairy Termination Program wane, the reduced fed cattle marketings will drop spring-quarter beef production 9-11 percent.

During the summer, large year-to-year declines in the number of cows slaughtered will continue to lower beef production. But, because placements of cattle on feed were large last winter and this spring, fed marketings will rise seasonally this summer, and beef production may be down only 6-8 percent. Production in the fourth quarter is likely to decline 4 to 6 percent.

As fed cattle prices slip from early spring highs, and ranchers with excess forage bid higher prices for stocker cattle, feedlot placements this summer could decrease from the high level of a year ago.

Milk Production Down

The effects of the Dairy Termination Program (DTP) continued to be felt during the first quarter, as milk production fell 3.6 percent from a year earlier. Production probably will move toward year-earlier levels this spring and summer due to higher output per cow and smaller Dairy Termination Program cow slaughter than a year ago.

Monthly production figures are expected to be close to a year ago by autumn. However, lower returns than during the early eighties, and the guarantee that large surpluses would trigger reductions in the support price, may temper major expansion plans by non-DTP farmers. For all of 1987, milk production is expected to be 1-3 percent below a year earlier.

Commercial use of all dairy products during January-March continued strong, rising about 3 percent from the first quarter of 1986. Variable economic growth and the waning effects of dairy promotion are expected to keep increases in commercial use for all of 1987 in the 1-3 percent range, slightly less than in recent years.

Net Government removals of dairy products during the first quarter of 1987 were about half the surplus of a year ago. Removals during the second quarter will be well below a year ago, but will be greatly affected by the extent to which commercial cheese stocks are rebuilt. Purchases after early summer are expected to be small. The tighter supply-demand situation this year will probably leave net removals between 4 and 7 billion pounds, roughly half of 1986's 10.6 billion and well below any year in the 1980's. *[Sara Short (202) 786-1830]*

For further information, contact: Ron Gustafson, cattle; Leland Southard, hogs; Lee Christensen, poultry and eggs; and Sara Short, dairy; (202) 786-1830.

FIELD CROP OVERVIEW

The first USDA projections for supply and use in 1987/88 indicate ample supplies for the program commodities. U.S. prodnction of most program crops will drop because of lower acreage. Foreign wheat production will fall, but larger foreign feed grain, cotton, and oilseed crops are likely (see commodity spotlight titled "Competitor Response Mild..."). Foreign production is responding only slowly to the lower world prices generated by large surpluses and the Food Security Act of 1985. Still, foreign demand is rising, and the volumes of world trade and U.S. exports are expanding.

Estimates for 1987/88 indicate that for all seven of the program crops except oats, use will surpass production and lead to reduced carryout. Lower ending stocks will be caused chiefly by reduced output for corn, sorghum, barley, and soybeans and by increased disappearance for wheat, corn, sorghum, oats, and rice.

Farmers enrolled about 195 million acres in 1987 acreage reduction programs, out of the 232-million-acre program base. The share of potential base signed up is a record 84 percent, up from 81.5 percent a year ago. To be eligible for program benefits, participants are idling 54.4 million acres—45.8 million in acreage reduction programs for the seven program crops and 8.6 million in the paid diversion programs for feed grains.

Total idled area for 1987 currently is estimated to be 71.4 million acres, including 17 million placed in the Conservation Reserve for 1986 and 1987. This idled area is second only to the 78 million acres diverted in 1983's PIK program.

Participation Heavy in U.S. Wheat and Rice Programs

The world's production of wheat and rice in 1987/88 is expected to drop 2 percent from the current year's record, with wheat production falling and rice production increasing slightly (table 26). Foreign wheat production will drop 5 percent because of reduced area and slightly lower yields. Acreage cutbacks will mean smaller crops in Australia and Canada, but wheat output in the EC may be second to the 1984/85 record as yields rebound.

Total wheat production among the importers will be down from last year, largely because of a smaller Soviet crop. With foreign wheat consumption remaining large, world wheat trade should total 97 million tons, up 7 million from 1986/87. The centrally planned economies are responsible for most of this increase. The smaller crop is likely to boost Soviet and

Generic Certificate Issuances

	Value
	$ million
ACTUAL (April 1986-April 15 1987)	
Deficiency and diversion payments	6,435
Other	855
Total	7,290
AUTHORIZED (April 16-August 1987)*	
1987 advance deficiency and diversion payments	465
1987 Cons. Reserve Program corn bonus payments	345
Export Enhance. & Targeted Export Assistance Programs	345
Total	1,155
TOTAL, actual and authorized	8,445
CERTIFICATE EXCHANGES (April 1986-April 15, 1987)	4,490
CERTIFICATE AVAILABILITY (April 16-August 1987)	3,955

*Remaining balances to be issued as of mid-April.

Cumulative Generic Certificate ExChanges as of May 6, 1987

Commodity 1/	CCC Inventory	Producer loans	Total
Food grains			
Wheat			
Volume (mil. bu.)	69.5	271.4	340.9
Value ($ mil.)	168.2	657.2	825.4
Rice			
Volume (mil. cwt.)	29.1	0.03	29.1
Value ($ mil.)	96.9	0.11	97.0
Feed grains			
Corn			
Volume (mil. bu.)	96.2	2,324.6	2,420.7
Value ($ mil.)	155.1	3,749.1	3,904.2
Grain sorghum			
Volume (mil. bu.)	31.2	110.1	141.2
Value ($ mil.)	54.8	193.4	248.1
Barley			
Volume (mil. bu.)	32.5	83.1	115.6
Value ($ mil.)	41.9	106.8	148.7
Cotton			
Volume (mil. bales)	0.81	5.39	6.20
Rye, oats, soybeans			
Value ($ mil.)	8.4	20.2	30.6
Total value ($ mil.) 2/	525.2	4,726.9	5,252.1

1/ Other program commodities, for which few or no exchanges have been made, include honey, nonfat dry milk, butter, and cheese. 2/ Does not include values for cotton exchanges.

Source: Agricultural Stabilization and Conservation Service, USDA.

Brazilian imports, while China's imports are expected to expand because of growing demand. With world production and consumption balanced, global stocks at the end of 1987/88 will remain close to the 1986/87 record.

The U.S. winter wheat crop for 1987/88 is forecast to rise 2 percent from a year earlier, going to 1.55 billion bushels, with a projected 13-percent rise in yields offsetting a 10-percent fall in harvested area. Total wheat production (winter and spring) in 1987/88 is projected to be 2.11 billion bushels, up slightly from 2.09 billion last season.

With at least 1 million harvested acres, yields are up in all States except Montana and Oklahoma. Kansas, with about one-fourth of U.S. winter wheat area, reported a yield increase from 33 bushels last season to 43 expected this year.

An anticipated 20-percent jump in U.S. wheat exports will offset lower feed use, causing total use to exceed production by 85 million bushels. As a consequence, ending stocks for 1987/88 are expected to drop for the second straight year, possibly falling to 81 percent of annual use, as compared with 86 percent in 1986/87.

For rice, initial estimates for 1987/88 also show a smaller carryin and total use exceeding output. This would lead to a reduction in carryout from 62.6 million cwt in 1986/87 to 46.8 million cwt.

The recent U.S. offer of 4 million tons of wheat to the Soviet Union under the Export Enhancement Program (EEP) will significantly expand U.S. wheat exports in 1987/88. Exports for the year are expected to total 1.23 billion bushels, compared with 1.03 billion this year. EEP sales to the Soviet Union and China account for most of this gain. U.S. rice exports are forecast to drop slightly to 78 million cwt.

Initial estimates indicate that 20.5 million acres of wheat base will be idled in the 1987 wheat program. The national participation rate is expected to be 83.4 percent, down marginally from 83.6 percent a year ago. Participation in the rice program is reported to be 93.4 percent, up from 92 percent in 1986. Area idled in the rice acreage reduction program is expected to total 1.38 million acres.

Generic certificate exchanges for wheat are running higher during the March-May quarter than during previous quarters. Through May 6, certificates had been exchanged for 86 million bushels of wheat. Wheat exchanges are rising in part because CCC lowered posted county prices (PCP) for ordinary protein wheat in spring-wheat-producing areas. Additionally, certificate exchanges for wheat should pick up prior to harvest as farmers free up storage for this season's crop.

Corn Trade Continues To Improve

The world's production of feed grains in 1987/88 is projected at 812 million tons, down 3 percent from the current year. While U.S. production is dropping, record yields are expected to lead to record foreign production of 592 million tons.

Foreign corn, sorghum, and barley crops all are expected to increase. Better weather would mean a production recovery in Argentina and the EC, and a large gain is expected in China's output. However, planting of much of the Southern Hemisphere's crop is still some months off. In addition, much uncertainty remains about acreage shifts between barley and wheat in countries such as Canada and Australia.

With record beginning stocks, world feed grain supplies during 1987/88 also will be a record, despite lower production. World consumption of feed grains is projected to show a modest gain, but world trade is expected to increase only 3 percent to 90 million tons. This level of trade is 7 million tons above the low of 1985/86, and 10 million below the 1984/85 level.

World corn trade will gain by 3 million tons next season, and sorghum trade will show little change. World barley trade has been record-large in 1986/87, partly because of big U.S. EEP sales, and little further increase is likely in 1987/88. World carryout stocks of feed grains next season are likely to drop only moderately, slipping to the second-largest level on record.

U.S. feed grain exports in 1987/88 are expected to show a 7-percent gain from the current crop year as the U.S. market share rises. Corn exports are forecast to rise from 1986/87's 1.45 billion bushels to 1.6 billion. A recovery of Argentina's production and exportable supplies will be largely offset by smaller shipments by other exporters. Exports of U.S. sorghum are expected to be unchanged at 225 million bushels, but barley shipments could drop from this year's record 150 million bushels. U.S. barley sales for 1987/88 will depend on use of the Export Enhancement Program.

Domestic Use Higher

The domestic outlook for feed grains in 1987/88 shows a slight improvement in the record supply/demand imbalance of 1986/87. Although carryin for 1987/88 is a record-high 157.2 million tons, total use is forecast to be about 229 million tons, 10 million greater than expected output. As a consequence, carryout could fall enough to lower the stocks-to-use ratio in 1987/88 to .65, compared with 1986/87's .71.

Generic certificate exchanges for corn are expected to have declined during the March-May quarter as 1986 corn loan placements tapered off. Through May 6, however, certificates were exchanged for 1.07 billion bushels, virtually all from 9-month loans. This amount substantially exceeds corn exchanges during Sept.-Nov. (344 million) and Dec.-Feb. (751 million).

One reason the pace of corn exchanges picked up this quarter is because PCP's were adjusted to more accurately reflect local market conditions in States where PCP's are partly based on Gulf port terminal prices. As a consequence, lower redemption prices encouraged greater certificate exchanges for corn at the same time that placement of 1986-crop corn under loan began to subside.

Signup in the 1987 feed grain programs was very heavy. Shares of base acreage enrolled in the programs total nearly 88 percent for corn, 83 for grain sorghum, 82 for barley, and 44 for oats. Participation rates for the corn program in Illinois, Indiana, Iowa, Minnesota, Nebraska, North and South Dakota are all above 90 percent.

In total, farmers are expected to idle 29.2 million acres of feed grain base, of which about 21.5 million are corn acres. Feed grain area to be idled by acreage reduction programs totals 20.6 million acres, and 8.6 million acres are being idled by the paid diversion program.

World Soybean Situation To Be Mostly Unchanged in 1987/88

The initial estimate for 1987/88 world oilseed production calls for a fourth consecutive record, with output reaching 198 million tons, compared with 196 million this year. The gain is coming from foreign producers, as U.S. oilseed production is expected to show the third consecutive decline, slipping 4 million tons. U.S. farmers intend to plant 56.9 million acres of soybeans this spring, 7.5 percent below 1986 and the lowest since 1976. Domestic production this season is expected to total 1.83 billion bushels, 9 percent below a year ago.

Disappearance of soybeans also is expected to drop this season, from 1.95 to 1.90 billion bushels. Crushings are likely to rise slightly, but exports could fall 7 percent to 650 million bushels, because of record world oilseed supplies. With disappearance expected to exceed production, carryout could fall to 520 million bushels, or 27 percent of annual use, compared with 31 percent in 1986/87.

It also is anticipated that huge world supplies will discourage U.S. exports of soybean oil and meal. Domestic oil use is projected to rise 4 percent to 10.9 billion pounds this season, but exports should remain flat at 1.35 billion pounds. A 9-percent increase in poultry production and a 3-percent expansion in pork production in 1987 bode well for domestic soybean meal use, which is expected to jump to 21.3 million short tons. Meal exports, however, are projected to drop 8 percent to 6 million tons.

Cotton Program Participation To Remain Heavy in 1987

World cotton production in 1987/88 is expected to rebound following the 12-percent drop in 1986/87. Foreign area is projected to expand and foreign output could rise 6 million bales to 65.5 million.

Larger plantings are likely in China, where the Government is trying to reverse the large 1986 production cutback. The cutback, in turn, was a response to earlier big surpluses. Acreage is also likely to expand in South America, Australia, India, and some African countries. Favorable world prices are part of the explanation for the increase. The combination of a 5-percent gain in 1986/87 cotton consumption and lower world production has reversed the cotton price decline that occurred at the beginning of 1986/87.

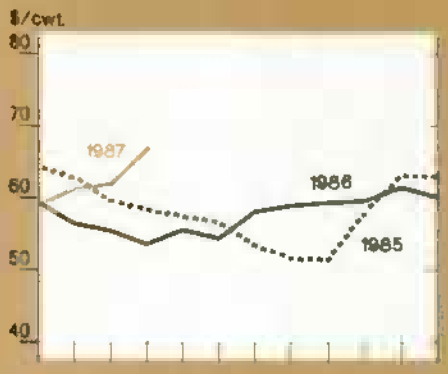
Participation in the U.S. upland cotton program will be heavy in 1987, with 89 percent of the base acreage signed up, down from 90 percent in 1986. Participation fell slightly with this season's stronger market. Also, the $250,000 program payment limit is discouraging participation by some farmers, particularly in California. Participation in California is reported to be only about 65 percent, compared with 89 percent last year. U.S. farmers intend to plant 10.35 million acres of cotton this spring, about 3 percent more than last year.

The increased domestic plantings and more normal yields are expected to raise production by 23 percent from a year ago to 12 million bales. However, higher prices and increased foreign competition could lower domestic use and exports in 1987/88. Initial projections put domestic mill use at 7 million bales, down from 7.3 million estimated for 1986/87. And, the larger foreign crop will mean more competition for U.S. cotton, causing exports to fall 10 percent to 6 million bales. Total use, however, should exceed production, and, therefore, lower carryout from 1986/87's expected 5.2 million bales to 4.3 million bales. *[Michael Hanthorn (202) 786-1840, and Frederic Surls (202) 786-1691]*

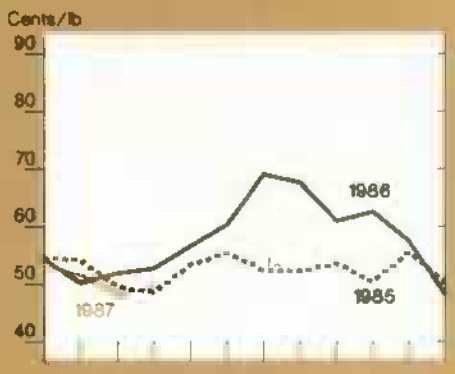
For further information, contact: Sara Schwartz, world food grains; Allen Schienbein, domestic wheat; Janet Livezey, rice; Peter Riley, world feed grains; David Hull, domestic feed grains; Tom Bickerton, world oilseeds; Roger Hoskin, domestic oilseeds; Carolyn Whitton, world cotton; Bob Skinner, domestic cotton; Jim Schaub, peanuts. World information, (202) 786-1691; domestic, (202) 786-1840.

Commodity Market Prices

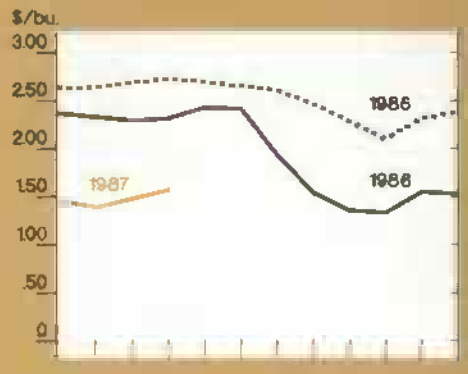
Choice steers, Omaha



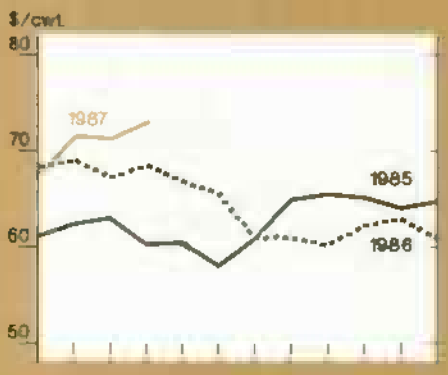
Broilers, 12-city average



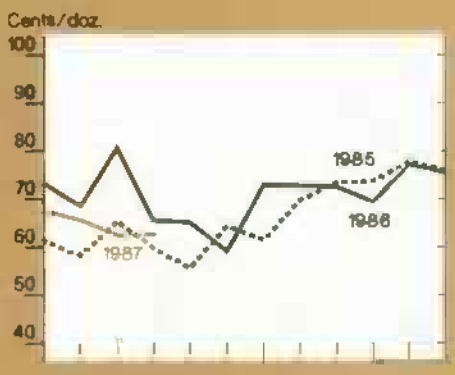
Corn, Chicago[3]



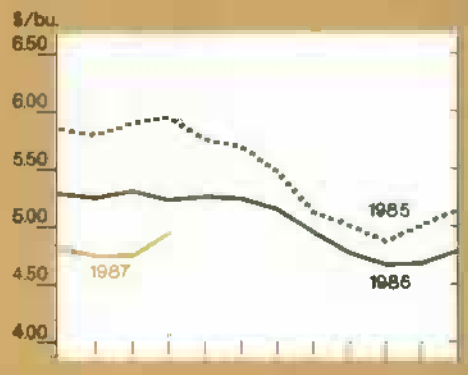
Feeder cattle, Kansas City[1]



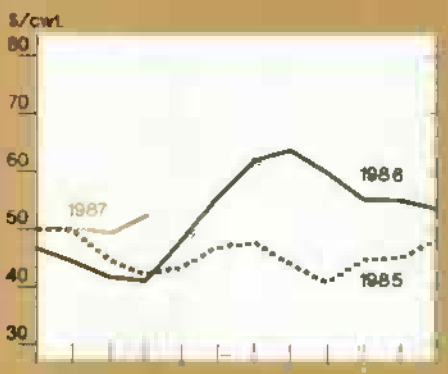
Eggs, New York[2]



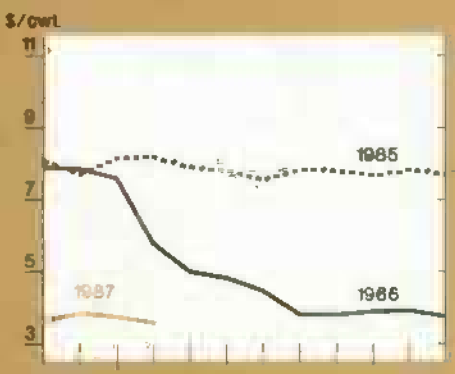
Soybeans, Chicago[4]



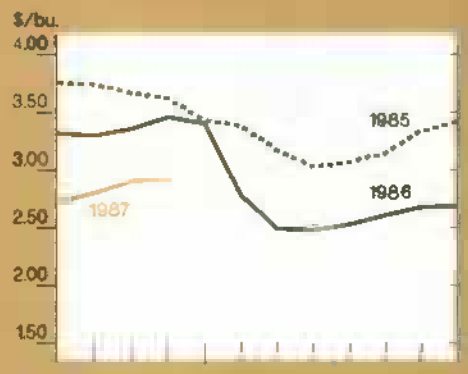
Barrows and gilts, 7 markets



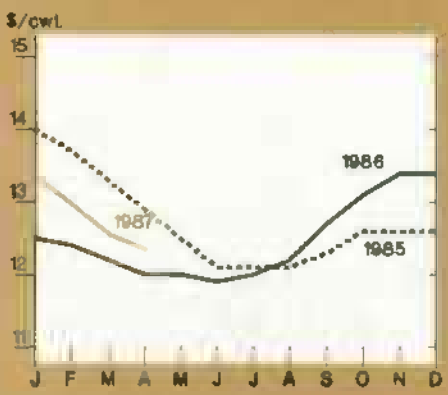
Rice (rough), SW Louisiana



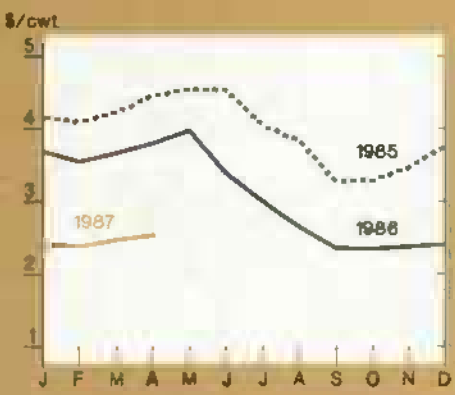
Wheat, Kansas City[5]



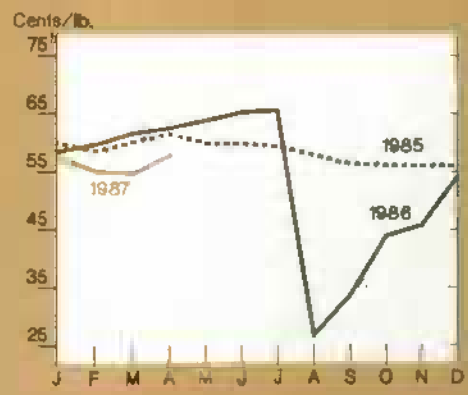
All milk



Sorghum, Kansas City



Cotton, average spot market



[1]600–700 lbs., medium no. 2. [2]Grade A Large [3]No. 1 Yellow. [4]No. 2 Yellow. [5]No. 1 HRW.

HIGH-VALUE CROP OVERVIEW

U.S. growers report they intend to increase area of spring fresh vegetables and processing vegetables in 1987. Strawberry and sugarbeet acreage also will rise. Congress is considering a bill to lower sugar loan rates, and tobacco consumption is declining again in 1987.

Spring Strawberry Acreage Bigger

Strawberry area in the major spring producing States rose 2 percent from last year to 29,500 acres. California's acreage alone expanded 3 percent to 16,100. As a result, California expects to harvest a record 845 million pounds, up 7 percent from 1986, despite a January freeze and subsequent cold weather that delayed production through February. F.o.b. prices for California strawberries were quoted at $4.88 a 12-pint tray in early May, compared with $4.30 a year earlier.

Spring Vegetable Area Up 8 Percent

Growers of the 7 major spring fresh-market vegetables intend to harvest 8 percent more area in 1987. California growers show the most optimism, indicating 17 percent more harvested acreage than last spring. California accounts for just over half of the total U.S. spring fresh vegetable acreage. Florida producers, who account for about 36 percent, indicated no change in spring harvest acreage from last season.

Broccoli, cauliflower, sweet corn, and lettuce are the gainers, with prospective harvested acreage rising 41, 5, 10, and 9 percent, respectively. Carrots, celery, and tomatoes show declines of 9, 2, and 10 percent, respectively. All spring tomato areas indicate acreage reductions from last year. Florida, the principal tomato production area, reported 9 percent fewer acres.

Vegetable canners and freezers have contracted for 1 percent more total acreage of snap beans, sweet corn, pickling cucumbers, green peas, and tomatoes in 1987 than in 1986. Canning vegetable area is rising 3 percent to 574,000 acres, while freezing vegetable area is moving up 5 percent to 374,000 acres. These increases offset a 4-percent drop in processing tomato acreage.

Tomato growers expect to produce 7.1 million tons of processing tomatoes in 1987, 2 percent below last year. Lower production this year may be growers' response to 1986 prices, which averaged 4 percent below the previous year.

Sugarbeet Area Gain Is Mostly in California

U.S. sugarbeet growers indicate intentions to plant 1.249 million acres in 1987, up 1.3 percent from 1986. California's intended acreage shows the largest gain, up 15 percent.

Minnesota and North Dakota's acreage intentions are down from last year. Growers in those States overplanted about 10 percent last year to make up for lower yields expected when wet fields delayed planting. Planting conditions in Minnesota and North Dakota are good this year, and despite a 3-percent decline in acreage, production should match or exceed 1986.

Based on the higher national acreage, U.S. beet sugar production should exceed the 3.35 million tons of 1986. Cane sugar production also is expected to exceed 1986's 3.15 million tons, as early growing conditions have been good in most areas. Higher production will add downward pressure to the U.S. sugar import quota.

Bill Proposes Lower Sugar Prices

An Administration-sponsored bill, (the Sugar Program Improvements Act of 1987) introduced in Congress in April, proposes to lower the raw cane sugar loan rate from 18 cents a pound to 12. The beet sugar loan rate would be reduced correspondingly.

By lowering the differential between U.S. and world sugar prices, the proposal would: (1) reduce incentives to move the manufacturing of sugar-containing products abroad, where sugar is cheaper, (2) lower sweetener costs to U.S. consumers, (3) reduce artificially high price incentives for domestic sugar production, and (4) halt major losses of U.S. sugar refining capacity, which would mean increased raw sugar imports. The bill provides for 4 years of transition payments to sugarcane and sugarbeet growers to help them adjust to lower domestic sugar prices.

Tobacco Consumption Down 2 Percent

U.S. consumers smoked 2 percent fewer cigarettes in 1986 than in the previous year and 9 percent fewer than the 1981 record high (see *Agricultural Outlook*, March 1987, page 10). Both per capita cigarette consumption and total use likely will continue to decline. State excise taxes on tobacco are rising, retail cigarette prices are higher, antismoking campaigns are continuing, and more and more public places are being designated nonsmoking areas.

Consumption of large cigars (including cigarillos) has declined in each of the last 15 years and is likely to slip again in 1987. Current cigar consumption is just over a third of the 1964 peak use.

Snuff consumption fell in 1986, the first decline since 1979. Chewing tobacco use also shrank. Production of all categories (plug, twist, and loose leaf) went down in 1986. The downward trend in both snuff and chewing tobacco use will likely continue in 1987.

Two separate Federal laws enacted in 1986 may dampen the demand for smokeless tobacco. One placed a 24-cent-a-pound excise tax on snuff and an 8-cent-a-pound tax on chewing tobacco. The second requires warning labels on smokeless tobacco containers and in-print advertisements about adverse health effects. Television and radio advertising of smokeless tobacco products was banned in 1986. [Glenn Zepp (202) 786-1768]

For further information, contact: Ben Huang, fruit; Shannon Reid Hamm, vegetables; Dave Harvey, sweeteners; Verner Grise, tobacco; (202) 786-1767.

Commodity Spotlights

The Financial Condition Of U.S. Dairy Farms

About 175,000 dairy farms were surveyed in the 1985 Farm Costs and Returns Survey (FCRS). These operations represented about 11.3 percent of all farms covered in the survey. On average, these dairy farms reported a little over $122,000 in gross farm receipts and about $88,000 in cash expenses.

About 24 percent of these farms reported a negative business cash income. The dairy sector's average per farm debt-asset ratio, .27, is larger than for all other farm types except cash grain. Approximately 37 percent (65,000) of the dairy farms reported debt-asset ratios ranging from 0 (no debt) to .10.

Only 9.7 percent of dairy farms reported ratios of .71 to 1.0, and only about 4 percent were insolvent (ratios above 1.0). After allowing for off-farm income and family living expenses, over half of all dairy farms reported positive household cash income.

Dairy farms reported, on average, much less off-farm income than other farm types. Therefore, their financial condition is extremely sensitive to changes in dairy receipts. Over 60 percent of all farms selling milk and dairy products received 90 percent or more of their gross farm income from such sales. Another 26 percent of dairy farms received 70-89 percent of gross farm sales from milk and dairy products.

Receipts Per Farm Higher In South and West

Eighty percent of dairy farms are located in the Lake States, the Northeast, and the Corn Belt. However, per farm receipts averaged higher in the Southeast, Mountain, and Pacific regions.

The percent of farms with positive household income also varied widely by region. Over half of the dairy farms in the Corn Belt, Appalachia, Delta, Lake States, and Northern and Southern Plains reported positive household cash income.

The Southeast, Mountain, and Pacific regions reported at least twice the per farm asset and debt values reported in other regions, indicating a substantial number of large farms. The debt-asset ratio was highest in the Lake States and Northern Plains and lowest in the Southeast.

The largest percentages of farms reporting financial stress (negative business or household cash income, and a debt-asset ratio above 0.40) were in the Southeast (24 percent), Southern Plains (33), and Corn Belt (20). However, a substantial number of dairy farms in the Southeast probably have sound operations, given the region's very large average per farm income and low average debt-asset ratio. Regions reporting over 85 percent of dairy farms without household financial stress included the Northeast, Appalachia, Mountain, and Pacific regions.

Smaller, More Diversified Farms Have More Financial Stress

Nearly 70 percent of the dairy farms represented in the FCRS sample re-

Location of Dairy Producers with Least Favorable Income & Solvency, 1985

Item	North-east	Lake States	Corn Belt	Northern Plains	Appala-chian	South-east	Delta	Southern Plains	Mountain	Pacific	United States
Number of farms	42,000	71,800	26,200	7,500	7,900	1,700	2,900	3,900	4,400	7,100	175,500
Percent of farms with negative business cash income and debt-asset ratio above 0.40	5.91	11.98	11.01	11.28	7.11	24.01	8.10	33.35	3.73	6.90	11.57
Percent of farms with negative household cash income and debt-asset ratio above 0.40	12.25	26.48	20.28	23.65	14.15	26.89	17.00	31.93	5.26	10.34	22.88

Sales Class of Dairy Producers with Least Favorable Income & Solvency, 1985

Item	$500,000 and over	$250,000 to $499,999	$100,000 to $249,999	$40,000 to $99,999	Less than $40,000	United States
Number of farms	5,400	13,100	56,500	64,100	36,300	175,500
Percent of farms with negative business cash income and debt-asset ratio above 0.40	4.49	7.20	7.42	7.89	20.75	11.57
Percent of farms with negative household cash income and debt-asset ratio above 0.40	13.04	15.84	17.81	20.10	27.00	22.88

Dairy Producers with Least Favorable Income and Solvency, by Degree of Specialization, 1985

Item	Dairy sales as a percent of total sales: Less than 50%	50%-69%	70%-89%	Greater than 90%	United States
Number of farms	8,900	16,000	44,900	105,700	175,500
Percent of farms with negative business cash income and debt-asset ratio above 0.40	29.82	4.59	5.44	11.50	11.57
Percent of farms with negative household cash income and debt-asset ratio above 0.40	40.74	14.55	19.15	19.87	22.88

Data were tabulated from the USDA's *Farm Costs and Returns Survey* (FCRS), conducted in the winter of 1986 for 1985. Operations were defined as dairy if the survey respondent identified the enterprise as a dairy farm, rather than through use of a Standard Industrial Classification definition. USDA will publish 1986 data in late summer.

The data must be carefully interpreted, because these disaggregated per farm averages often represent an asymmetrical distribution of farms within each category. These data also give only a single year's perspective.

ported annual sales of $40,000 to $249,999. Almost 5,400 dairy farms (3 percent) reported sales over $500,000. About 20 percent, or 36,000, reported sales of less than $40,000. Of these small farms, over half also reported a negative business cash income. These results contrast sharply with larger dairy farms, especially those with gross cash farm income over $100,000. Only about an eighth of the larger farms in each sales class reported a negative business cash income.

Like negative business cash income, household financial stress was reported most often (27 percent) in the under-$40,000 operations, and least often (13 percent) in the over-$500,000 farms. A little under 80 percent of farms with sales between $40,000 and $99,999 were without financial stress.

Business financial stress was reported by less than 8 percent of farms in each of the larger sales classes.

Dairy-farm financial stress varied by degree of specialization. Almost 30 percent of the least specialized farms reported business financial stress. This figure is about five to six times as large as more specialized farms (with dairy constituting 50-90 percent of sales), and almost three times as large as the most specialized farms. Approximately 80 to 85 percent of dairy farms with over half their income from milk and dairy products were reported without household financial stress. *(Ken Baum (202) 786-1820, Mitchell Morehart (202) 786-1801, and Jim Johnson (202) 786-1800)*

Competitor Response Mild To Lower U.S. Grain Prices

Total world production of wheat and coarse grains will drop in 1987/88 because of lower production in the United States. But, foreign output, excluding the Soviet Union, is expected to remain close to the records of 1986/87. Exporters competing with the United States are only beginning to adjust to the lower prices. Wheat area in competing countries is forecast to fall 2 to 3 percent but little change is expected in competitor coarse grain area. Importing countries' responses to declining grain prices, such as cutting domestic production or raising imports, have been tempered by debt problems, foreign exchange shortages, and slow economic growth.

World grain prices plunged during 1986/87 because of growing world surpluses and lower U.S. loan rates. Several factors account for the modest area cuts. Some producers may have few profitable alternatives and are willing to absorb losses rather than reduce planted area. In some countries, particularly in the EC, farm prices are divorced from the international market. Other countries, such as Australia, provide price supports to grain producers based on formulas that incorporate prices from previous years, resulting in a lag between the drop in international prices and reduced domestic supports.

1987/88 Wheat Crop Will Approach Last Year's Record

The area planted to wheat worldwide in 1987/88 is forecast to match 1986/87, but declines are expected in

Canada's Planted Area and Initial Payments

	Actual 1986/87	Statistics Canada March planting intentions 1987/88	USDA May forecast 1987/88
		Million ha.	
Wheat	14.2	13.2	13.4
Barley	4.9	5.8	5.1

Initial Payments, April

	1986/87	1987/88	Change
	Can$ per ton		Percent
Spring wheat	130	110	-15.4
Amber Durum	130	110	-15.4
Malting barley	155	105	-32.3
Feed barley	80	60	-25.0

major producing and exporting countries, including the United States, Canada, and Australia. Most of the drop will be in the Soviet Union. Production is expected to decline by less than 5 percent from 1986/87's record 530 million tons. In total, area harvested in the major foreign exporting countries is forecast to fall 2 to 3 percent, but a recovery in Argentine and EC yields will cause production to fall marginally to 128 million tons.

Canada and Australia Adjust Prices

Canadian wheat production is currently expected to fall 18 percent from 1986/87, to 26 million tons. Area in 1986/87 is projected to drop 6 percent in response to the Canadian Wheat Board's announcement that initial payments will be 15.4 percent below last year. These payments are based on anticipated world prices and constitute most of the returns to wheat farmers, although other factors also influence producer decisions.

Canada's initial payments for barley, which commonly competes with wheat for planted area, were reduced even more. Further, in some areas, pasture or not planting anything are the only alternatives to planting wheat, and farmers may be reluctant to set aside the land. The reason is that payments under a $1-billion program to compensate farmers for low world prices in 1986/87 were based partially on planted acreage. While no 1987 program has yet been announced, the Government claims that any future snpport programs will not base payments on production. Despite these assurances, some farmers hesitate to reduce planted area.

Australia's guaranteed minimum wheat prices, based on a formula that averages in the lower 2 of the last 3 years' prices and the expected price of the current year, are likely to drop about 10 percent. Area is projected to decline 5 percent from 1986/87 to 10.7 million hectares, and production may drop 13 percent to 14.5 million tons, the lowest level in 5 years.

Like Canadian farmers, Australian producers have few alternatives to wheat, although barley prices are strengthening relative to wheat and some substitution may occur. Moisture levels during the planting season for winter grain, principally May and June, will strongly influence farmers' decisions to plant wheat or barley, or leave the land in pasture or idle.

Little Area Response Among Other Competitors

In the EC, administrative adjustments to the grain intervention system will further reduce effective prices. Furthermore, there are proposals to cut support prices for grain in 1987/88. However, farmers are largely insulated from the sharp drop in world market prices, and all planting will be done prior to passage of any 1987/88 program. So, production incentives for grains remain strong, and wheat area harvested in the European Community is forecast to increase slightly to 15.9 million hectares. However, production may climb 9 percent to 78 million tons, the second largest crop ever.

In contrast, harvested area in Argentina has declined every year since 1982/83, and is expected to remain at the current low level because of continued low returns and chronic wet conditions in major wheat-producing regions. However, further decline in Argentina's planted area may be hampered by the lack of profitable alternatives with more favorable growing conditions.

Wheat production may actually increase 7 percent to 9.5 million tons because of improved yields. While wheat growers have made large adjustments in planted area over the last few years due to low prices they have been cushioned to some extent by reductions in export taxes. Even so, they may have to make larger adjustments in the future.

Despite Area Shifts, Coarse Grain Output To Remain High

Although world coarse grain production will decline during 1987/88, the United States accounts for all of the drop. Foreign production appears to be heading for a second consecutive record, barring major weather disasters. Area is expected to stay about the same, and initial forecasts place foreign output at 592 million tons, up 5.5 million.

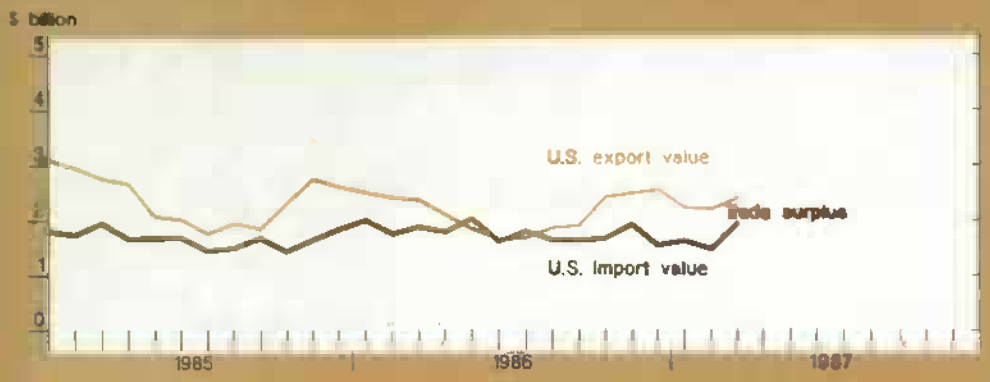
Among major foreign competitors, the outlook is for little change in total coarse grain area. A slight drop is foreseen in corn plantings, but this is more than offset by increases in sorghum and barley plantings. Planting will not begin in the Southern Hemisphere for several months, and the outlook could change.

Competitors To Increase Corn and Sorghum Production

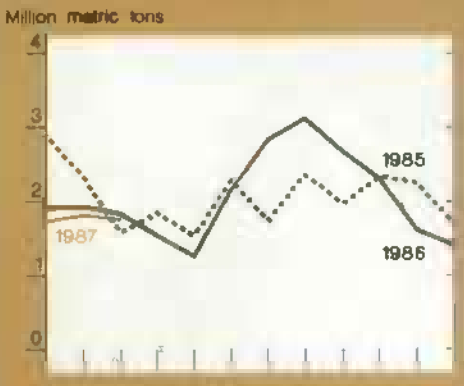
Assuming normal weather, corn production by major competing countries—Argentina, France, South Africa, and Thailand—is expected to rise 8 percent during 1987/88, because of higher yields and about the same area as 1986/87. Thailand is expected

U.S. Agricultural Trade Indicators

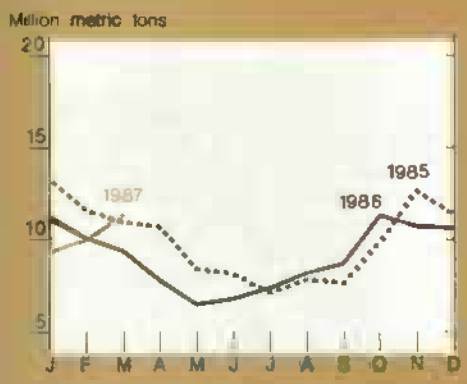
U.S. agricultural trade balance



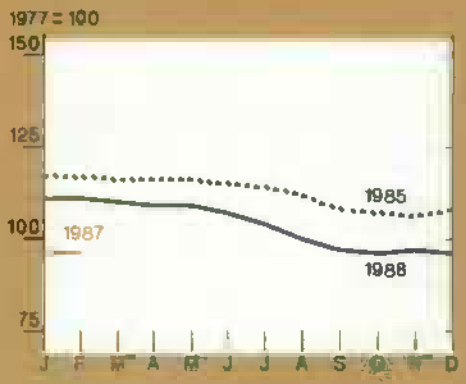
U.S. wheat exports



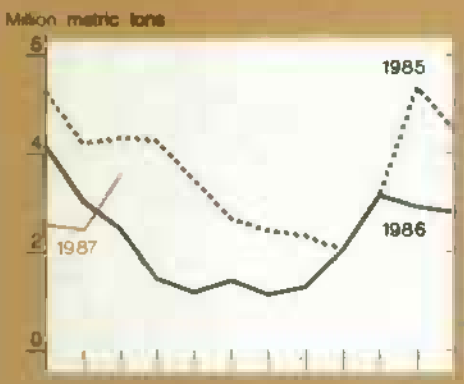
Export volume



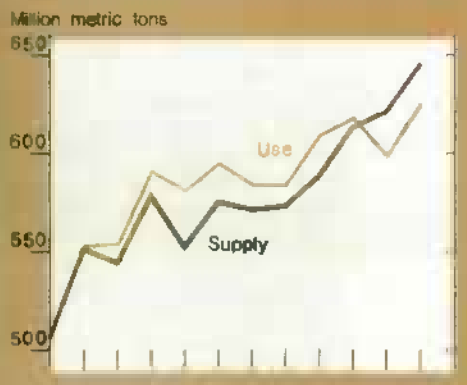
Index of export prices



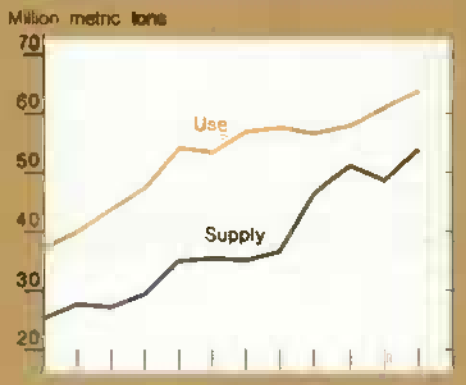
U.S. corn exports



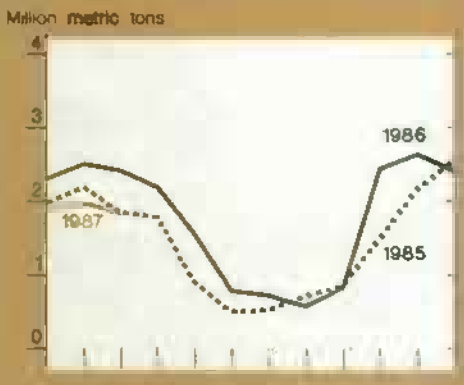
Foreign supply & use of coarse grains



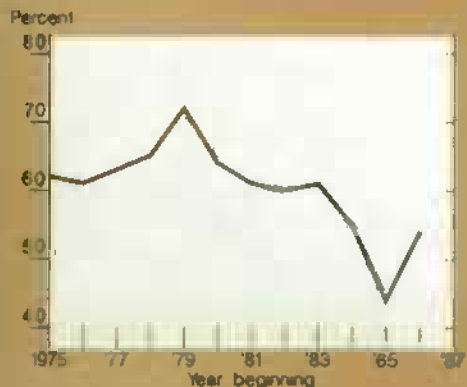
Foreign supply & use of soybeans



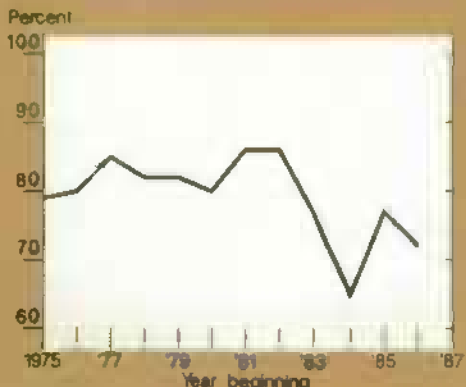
U.S. soybean exports



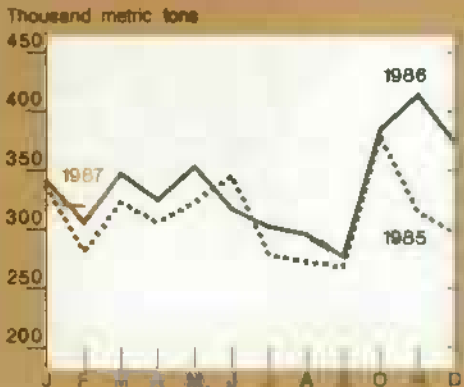
U.S. share of world coarse grains exports[1,2]



U.S. share of world soybean exports



U.S. fruit & vegetable exports[3]



1/ Excluding intra-EC trade. 2/ October-September years. 3/ Includes fruit juices.

Note: Wheat, corn, soybean, and cotton exchange rates and export unit values are now included in the U.S. Agricultural Trade tables at the back of this issue.

to plant less corn in response to more favorable prices for other crops, mainly soybeans and cassava. Thai farmers are reacting to world market prices. Although a drop of 9 percent in Thai corn area is likely, production could increase a bit above last year's drought-reduced crop.

In France, corn area is anticipated to drop 6 percent, but higher yields may bring a slight increase in production. Because grain prices received by farmers have eroded relative to oilseeds, most of the area taken out of corn will go into sunflowers or rapeseed.

In Argentina, the 1986/87 corn crop was hard hit by poor weather that caused large losses and depressed yields. There are indications that corn area could rise in 1987/88. However, current low grain prices have compounded financial stress, and farmers may get better returns by growing soybeans rather than coarse grains. Increasing corn grown for silage rather than grain or increasing pasture are other options that some will consider because of more favorable livestock prices.

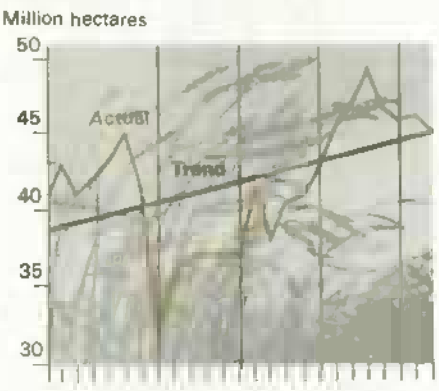
Corn area in South Africa is expected to be about the same in 1987/88 as this season. There is little likelihood of expansion given current world prices, even though area has not recovered to the higher levels of the early 1980's—before the bad drought years of 1983 and 1984. At that time South African prices were closer to world prices.

The world corn outlook is also heavily influenced by China and Brazil, the two largest producers after the United States. With strong growth in demand for livestock feed, China is attempting to increase coarse grain output. Corn production is forecast to rise by 8 percent, based on an area increase of more than 1 percent and a rebound from 1986/87's drought-reduced yields. China is reacting more to the pressure of domestic demand than to world prices; consumption could rise by 9 percent in 1987/88.

In Brazil, more favorable prices for soybeans should result in some switch back from corn, but corn area is projected to fall only 5 percent. Production in Brazil is also geared toward meeting growing domestic needs rather than exports, and, while dropping 2.5 million tons from 1986/87's record, will be the second largest crop ever.

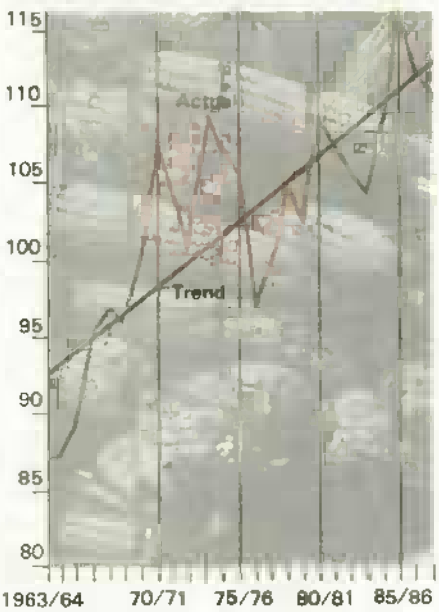
Competitors' Wheat Plantings Return to Trend, While Corn Area Drops Below

Wheat*



*Competitors include Australia, Argentina, Canada, and the EC.
1986/87 estimated; 1987/88 forecast

Corn*



*Competitors include Argentina, France, S. Africa, and Thailand

Major competitors are forecast to increase sorghum area by 6 percent in 1987/88, with improved yields contributing to a 10-percent gain in production. Australia is expected to increase area by 9 percent if better moisture conditions prevail. For Argentina, in addition to price concerns, continued wet conditions have flooded out some of the land traditionally used for sorghum.

Small Rise Likely in Barley Area and Production

Barley area in the main foreign competitors may increase by 2 percent, largely due to more area in Australia, while production is slated to rise 3 percent. The forecast increase of 13 percent in Australian area reflects slightly better price expectations relative to wheat, but would still leave Australia 700,000 hectares below 1985/86. Area for 1986/87 dropped sharply because higher returns were expected for wheat and it was too dry for some farmers to plant.

Canadian producers are expected to increase barley area by 3 percent, but much can change this spring. Some substitution among barley, wheat, rapeseed, and summer fallow is anticipated. Production could fall 2 million tons below the record of 1986/87 because some decline from 1986/87 record yields is expected.

Barley area will decrease 1 percent in the EC because of a switch out of spring barley in West Germany due to poor yields. Total EC production is forecast to rise nearly 4 million tons in 1987/88, led by a recovery of output in Spain. *[Pete Riley and Sara Schwartz (202) 786-1691]*

Fresh Produce Imports To Continue Gains

Fresh fruit and vegetables are relatively new to the arena of international trade because they are highly perishable and have widely varying quality and appearance, volatile prices, and competition from local sources during various times of the year. Only recently have storage and transportation improvements and better plant varieties and cultural practices made production for export economically attractive.

Production for export is expanding rapidly worldwide. In Europe, national and international markets have grown faster than regional ones since the formation of the EC and the rise in multinational corporations.

In Mexico, South and Central America, and the Caribbean—where climates permit longer growing seasons and the production of tropical varieties not adaptable elsewhere—production for export is also expanding, often aided by government policies designed to help generate foreign exchange. In many countries, some fresh produce items are grown strictly for export markets.

Fresh produce consumption in the United States is increasing from population and income growth, greater awareness of nutrition, and changing age and ethnic composition. These, combined with a high-valued dollar until 1985, have favored increasing imports to extend the period of availability beyond domestic production.

Total U.S. shipments of fresh fruit and vegetables from domestic and foreign sources grew at an average annual rate of 3.2 percent between 1980 and 1986. Deliveries from domestic producers were up an average 2.8 percent per year, while imports increased an average 5.6 percent. Imports' share of U.S. fresh produce consumption has ranged between 16 and 18 percent since 1980. Over the same period, the total value of fresh and frozen fruit and vegetable imports has doubled, going to $2.1 billion in 1986. Imports of fresh and frozen produce represented 10 percent of last year's $21.0 billion total agricultural import value and 54 percent of the $3.8 billion total value of all fruit, vegetable, and product imports.

The growth in U.S. fresh produce imports from the major European fresh-produce-exporting countries (Belgium, France, Greece, Italy, Netherlands, Spain, and West Germany) has been dramatic. Although highly variable from year to year, imports from these countries grew an average 23.3 percent per year during 1980-86, to 77.5 million pounds. Spanish lemons and oranges and French apples accounted for most of the increase. Imports from Canada, Mexico, Australia, and New Zealand are also rising, but at more moderate rates.

The proximity of South and Central America and the Caribbean to U.S. markets encourages increasing imports from these areas because of lower transportation costs. Traditionally, Mexico supplies the United States with a wide variety of vegetables and melons; South and Central American countries have specialized in fruit production for export purposes; and the Caribbean exports both fruit and vegetables.

South and Central American fresh fruit and vegetable exports to the United States grew at an average annual rate of 4.8 percent from 1980 to 1986, when they totaled 7.1 billion pounds. Bananas constitute the majority of imports from South and Central America (87 percent by weight in 1986). But, recent development efforts are broadening the product mix to include grapes, apples, peaches, nectarines, and pears from Chile, and assorted melons from Guatemala, Honduras, Costa Rica, and Ecuador. Caribbean exports to the United States expanded an average 18.4 percent per year over the past 7 years, totaling 172 million pounds in 1986.

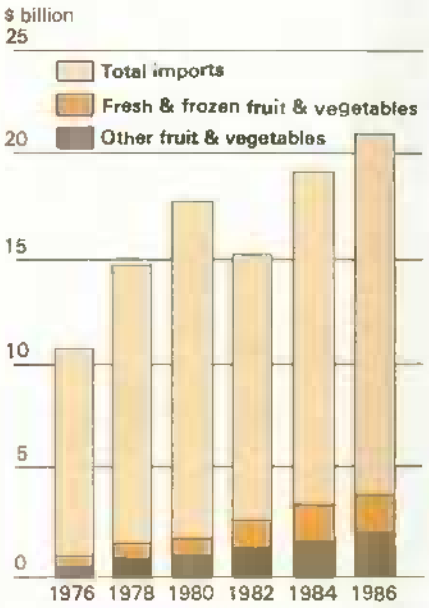
There is growing concern over U.S. producers' ability to compete with some imports. While transportation costs are higher for imports than for domestic shipments, lower wage rates in Mexico, South and Central America, and the Caribbean give growers there substantially lower production costs than in the United States.

Origin of Fresh Fruit and Vegetables in U.S. Markets

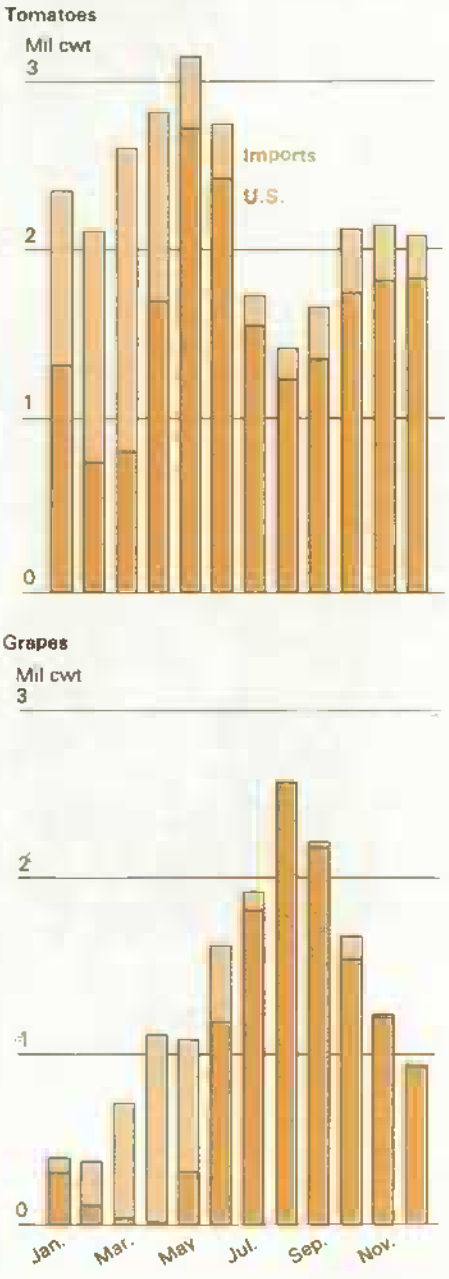
Year	U.S.	Mexico	Canada	South & Central America	Caribbean	Europe 1/	Other	Total
				Billion pounds				
1980	45.67	2.31	.54	5.32	.06	.02	.06	53.98
1981	48.31	1.88	.69	5.60	.08	.01	.07	56.64
1982	48.74	2.26	.79	5.97	.07	.04	.07	57.94
1983	50.88	2.54	.73	5.75	.08	.03	.09	60.10
1984	50.63	2.91	.55	6.14	.10	.07	.12	60.52
1985	50.73	2.94	.87	7.18	.15	.11	.17	62.15
1986	53.91	3.30	.86	7.08	.17	.08	.17	65.57

1/ Belgium, France, Greece, Italy, Netherlands, Spain, and West Germany.

Fruit/Vegetables Increasing as Share of U.S. Ag Imports



U.S. Fresh Fruit Imports Fill Seasonal Needs



Averages for each month during 1982-86.

For example, mature green ground tomatoes in Dade County, Florida, cost $3.02 per box to produce, harvest, and pack in 1984/85, while vine-ripened staked tomatoes cost $2.07 per box in Sinaloa, Mexico. Thus, imports that overlap domestic shipping periods may lower prices received by domestic growers, reducing their net returns.

Other major issues include whether produce imports meet domestic quality standards and whether they comply with U.S. pesticide regulations. Currently, legislation has been introduced to test entering produce more stringently for illegal pesticide residues and tolerance levels, and also to require country-of-origin labeling. While these actions may limit imports not meeting standards, they are intended to ensure U.S. consumers of safer, higher quality products.

Growth in fresh fruit and vegetable imports likely will continue over the next decade because consumers will demand greater variety and year-round availability. However, as domestic supply areas also shift in response to changing demand, imports' share of the U.S. fresh produce supply is likely to change little from 1986's 18 percent. Rather, the availability of off-season fruits and vegetables will probably grow in addition to a wider selection of produce items with limited or no domestic production.

Imports from South and Central America and the Caribbean are expected to grow the most because of those areas' proximity and low production costs. Consequently, U.S. imports from these areas will probably surpass the annual growth rates of the past 7 years. *(Kate Buckley (202) 786-1770)*

HFCS Growth Prospects

U.S. consumption of high fructose corn syrup (HFCS) rose from 0.5 million tons to 5.5 million between 1975 and 1986. Growth was largely at the expense of sugar, as lower-priced HFCS substituted for sugar in industrially prepared food and beverages, especially soft drinks.

After rising at an annnal average rate of 19 percent between 1981 and 1985, HFCS has reached market maturity. Consumption grew only 2.6 percent in 1986 and is not expected to increase by more than that in 1987. Future growth of HFCS consumption will be tempered by competition from low-calorie sweeteners.

The discovery that starches could be converted into sugars was originally made in the early 1800's. However, not until the 1970's, and the development of an enzymatic process to mass-produce HFCS, did production surge.

The corn sweetener market is made up of three major products—HFCS, glucose corn syrup, and dextrose—each with both food and nonfood uses. Nonfood uses for corn sweeteners are in such areas as tobacco products, textiles, dyes, and tanning, and make np iess than 3 percent of total use. HFCS is further divided into HFCS-42 and HFCS-55, indicating the percentage of fructose in the mixture. A small amount of HFCS-90 is also produced. Starting in mid-1987, a low-cost crystalline fructose product will also be available.

In 1986, corn sweetener consumption totaled an estimated 8.12 million tons, or 67.3 pounds per person, compared with 59.1 pounds of sugar. Of this total, 5.53 million tons were HFCS, 2.17 million glucose, and .43 million dextrose. In 1985, corn sweeteners passed sugar as the chief sweetener used in the United States. The corn wet milling industry has also become an important user of domestic corn. The production of corn sweeteners in 1986 took an estimated 474 million bushels of corn, or 6 percent of the 1986 crop—about equal to the entire production of Ohio, the fifth largest corn-producing State.

Coproduct Credits Lower Corn Sweetener Costs

The soft drink industry has provided a ready market because HFCS has been priced at enongh of a discount to sugar to make switching economically advantageous. From 1982 through 1986, HFCS-55 in the Chicago-West market averaged a 14-percent discount to sugar.

The price for HFCS is a function of both demand and production of sweeteners, and the operation of the sugar program. Major factors determining production costs are the price of corn and the prices of starch, corn oil, corn gluten feed, and corn gluten meal—coproducts of the corn wet milling process. With corn prices dropping in 1986, and oil, gluten feed, and gluten meal prices steady or rising, the net cost of starch for conversion into HFCS dropped from 4.2 cents a pound in June 1986 to 0.7 cents in November.

Lower net starch costs and slowing rates of consumption growth have combined to cut HFCS prices in 1987 to their lowest in 7 years. HFCS-55 was quoted below 14 cents a pound (dry basis, delivered) in April in the Chicago-West market, down from 14.7 in March and an average of 20 cents in 1986. HFCS-42 prices also dropped sharply, to less than 13 cents a pound in April, from 14.6 in March and an average of 18.1 in 1986. Although two corn wet milling facilities (in Morrisville, Pa., and Montezuma, N.Y.) have halted production indefinitely, the industry is still experiencing overcapacity. Imports also added to U.S. oversupply last year; over 225,000 tons, dry basis, of HFCS were imported from Canada.

Sugar Program Aided HFCS Growth

The rise in HFCS consumption is tied to both the economics of the corn wet milling industry and the U.S. sugar program. Ironically, the program that protected domestic sugar producers' prices also helped give HFCS an opportunity to undercut sugar. Domestic sugar producers have long had various Government programs to provide a price floor for sugar, but there has never been a mechanism to put a price ceiling on sugar and thus protect consumers from cyclical spikes in world prices.

In 1974, monthly average world prices for raw sugar rose to over 55 cents a pound; for the year, prices averaged 30 cents a pound. In 1975, prices averaged 20 cents. This price spike provided a major incentive for wet corn millers to invest in production facilities for HFCS. With the U.S. sugar program providing a market price umbrella, HFCS producers needed to reduce production costs only a fraction to be able to offer a discount to sugar.

The world raw sugar price spiked again in 1980, at 41 cents a pound, and averaged 29 and 17 cents in 1980 and 1981, respectively. Against this background of high sugar prices, the

Net Starch Cost Calculations

	June 1986	March 1987
Corn price ($/bu.)	2.41	1.47
Oil price ($/lb.)	.173	.226
Pounds of oil per bu. of corn	x 1.6	x 1.6
Equals oil credit ($/bu.)	-.28	-.36
Gluten feed price ($/lb.)	.044	.050
Pounds of g.f. per bu. of corn	x 12.5	x 12.5
Equals g.f. credit ($/bu.)	-.55	-.62
Gluten meal price ($/lb.)	.108	.104
Pounds of g.m. per bu. of corn	x 2.5	x 2.5
Equals g.m. credit ($/bu.)	-.27	-.26
Net corn cost ($/bu.)	1.31	.23
Pounds of starch per bu. of corn	31.5	31.5
Net starch cost (¢/lb.)	4.2	0.7
HFCS-55 price (¢/lb.) (dry weight)	19.8	15.0

*Number 2 yellow corn, Central Illinois.

1981 Farm Act was passed. The act provided for relatively high minimum loan rates for raw cane sugar. As world sugar prices fell to less than 8.5 cents a pound in 1982, the Administration imposed restrictive country-by-country import quotas. This provided further incentive for many manufacturers of sugar-containing products to look for alternatives to sugar.

HFCS is a liquid with physical properties somewhat different from sugar, so it is not substitutable in all products. However, HFCS could very readily substitute for sugar in soft drinks, the largest single sugar user. In 1978, the soft drink market used a record 2.6 million tons of refined sugar. As the major soft drink manufacturers approved the HFCS substitution, the amount of sugar used in soft drinks fell precipitously. By 1986, refined sugar use in the soft drink industry had tumbled to less than 275,000 tons, or less than 8 percent of all caloric sweeteners used in soft drinks.

In 1987, HFCS consumption in all uses should increase by 100,000 to 150,000 tons, from 5.53 million tons in 1986, partly from population and income growth. Over the next several years, growth will be moderated by a number of factors:

- The increased demand for diet soft drinks will mean slower growth for nondiet drinks.
- A number of new low-calorie sweeteners currently undergoing testing may be approved for commercial use. These new artificial sweeteners, adaptable to a wide range of uses, will likely reduce consumption of both sugar and HFCS.
- The main new outlets remaining for HFCS are those smaller markets where product reformulation or a production process change is needed before HFCS can be used. *[David Harvey (202) 786-1767]*

Wool Textile Imports Growing

Imports are a worsening problem for the American wool textile industry, although U.S. mill use of raw wool has risen substantially since 1985. In the 1960's, textile wool imports averaged less than 28 percent of the domestic consumption of wool. By 1986, imports' share had risen to 68 percent.

The wool textile business is generally divided into two parts: carpets and apparel. Imports constituted 85 percent of the wool carpets purchased by Americans in 1986. In contrast, during 1960-1974, imports averaged only 15 percent of U.S. wool carpet purchases.

Wool apparel imports averaged 33 percent of apparel wool consumption in the United States during 1960-69, but by 1985-86 this share had more than doubled, going to almost 67 percent.

Wool textile imports in 1986 originated in the following regions: Asia and Oceania, 52 percent; Western Europe, 33; Western Hemisphere, 9; Eastern Europe, 4; and Africa, 2. Six countries provided 55 percent of total U.S. wool imports: Hong Kong and Italy (11 percent each), China (9 percent), and Taiwan, Korea, and the United Kingdom (8 percent each).

Two principal factors caused the decline in U.S. raw wool mill consumption since the 1960's: manmade fibers and imports. U.S. textile mills and manufacturers of apparel and household textile products readily adopted new manmade fibers two and three decades ago, especially nylon, acrylics, and polyester. These new fibers enabled the industry to lower production costs for many items. In addition, their supply and price were more predictable than those for wool and cotton. A third advantage was that textile products containing manmade fibers frequently gave the customer greater performance than did the comparable wool product.

Also during the last 25 years, textile imports of all types became increasingly important. American consumers were attracted by imports' lower prices, which reflected significantly lower production costs in the country of origin. These imports have indirectly cut wool use by the American public because they frequently are made in part or entirely from manmade fibers. *[John Lawler (202) 786-1840]*

Farm Finance

Farm Income and Returns

	Average for period						
	1970-71	1972-74	1975-79	1980-84	1985	1986P	1987F
	1982 $ billion						
Gross farm income	132.7	170.2	162.6	152.3	139.7	131	123-125
Returns to operators	31.1	50.6	30.0	16.5	23.0	27	26-28
Returns to assets	19.6	41.6	22.8	18.9	25.0	28	28-30
Returns to equity	12.0	32.6	10.2	-0.7	8.9	14	15-17
	Percent						
Return to assets	3.1	5.9	2.7	2.0	3.3	4.1	4.2-5.2
Income return to equity	2.3	5.6	1.4	-0.1	1.5	2.8	3.0-4.0

P = preliminary. F = forecast.

1986 ESTIMATES AND 1987 OUTLOOK

Net cash income is expected to increase for the sixth consecutive year, with livestock's share increasing to over half the total (table 32). Production expenses will likely decline due to lower input prices and use. Direct Government payments are rising to another record, but falling net CCC loans should balance them, leaving total Federal outlays near last year.

Farmland values may have begun to stabilize in the first quarter. Farm debt is projected to continue its sharp fall. Thus, farmers' equity may rise slightly for the first time since 1980.

Farm Sector Earnings Setting a Record

Net cash income is expected to rise to a record $48 to $52 billion in 1987, up from the $49 billion estimated for 1986. In 1982 dollars, net cash income is forecast to be the highest since 1980. For 1985 to 1987, livestock farms may see net cash income increase nearly two-fifths, while crop-farm incomes may decline more than a tenth. As a consequence, livestock farms' share of net cash income will be just over half the sector's total. Livestock operations account for nearly 60 percent of all farms.

Net farm income, which approximates the net value of farm production, may equal or exceed the 1973 record. Throughout the last decade, this measure has shown considerable variation, largely from wide swings in inventories. Adding most to the expected gain this year are a $4- to $6-billion drop in total expenses, rising Federal income supports, and less inventory drawdown. Also, depreciation expenses have slowed dramatically, as cautious operators have refrained from new equipment purchases. These factors, plus the absence of weather extremes, have helped stabilize net farm income over the past 3 years, and will help push it up to a range of $33 to $37 billion in 1987.

Production Expenses To Continue Declining

A major factor in farm income over the past few years has been a steady reduction in operating expenses. After falling more than 8 percent in 1986, total production expenses are forecast to decline another 4 to 6 percent in calendar 1987, totaling $119 to $121 billion.

This reduction comes from declining input use as well as lower prices. Total input use is down because of a steep drop in planted acreage and less intensive input application. Cash expenses should follow closely, falling about $4 to $6 billion in 1987.

Lower interest charges have contributed more than any other expense item to cost savings during the past few years. Two driving forces include the

1986 Expense Decline May Be Larger Than Earlier Expected

Preliminary information suggests U.S. farmers pared their 1986 production expenses by more than in any year since 1932. A combination of lower prices paid for production inputs, reduced acres planted, and lower per-acre input use likely left cash expenses down about 9 percent from 1985.

As expected, manufactured inputs (fertilizer, energy, and pesticides) probably exhibited the largest cutback, followed by interest charges, and farm-origin input costs (feed, feeder livestock, and seed). The reduction from earlier forecasts seems to be spread across most expense categories rather than being concentrated in any one category.

The large reduction in expenses means that instead of remaining near the 1985 level, farm income likely rose significantly, with another rise expected for 1987. The first estimate of 1986 farm income based on survey data is scheduled to be released this August, and a preliminary USDA report on Production Expenditures will be released June 23.

Chapter 12 Bankruptcy: Possible Effects

The recent addition of Chapter 12 to the U.S. Bankruptcy Code has sparked much debate over its implication for agricultural credit. Through a Chapter 12 bankruptcy, farmers are able to reorganize and restructure their debts under rules designed specifically for them.

Although the new bankruptcy rules should benefit some financially stressed farmers, there are fears that Chapter 12 favors the debtor over the lender, and that such an imbalance will restrict agricultural credit supplied to all farmers, not just those with financial problems.

Filings Likely To Grow

In the first 3 months following enactment, 1,794 farmers filed cases under Chapter 12, and filings are expected to increase as more farmers learn about the new provisions.

The largest number of potential Chapter 12 users include about 204,000 commercial-size farmers with debt-asset ratios above .4; they are usually identified as being deep enough in debt to be financially stressed. Of these, about 52,000 (representing 8.7 percent of eligible commercial-size farms) had negative net cash incomes and debt-asset ratios greater than .70 in 1985. These are the farmers most likely to file immediately.

However, many of the 204,000 stressed producers will not file under Chapter 12 because there are other methods available to handle financial problems, such as out-of-court agreements, farm loan mediation with voluntary debt restructuring, partial liquidations, and other bankruptcy codes.

Chapter 12 Increases Ability To Write-Down Secured Debt

Chapter 12 provides farmers a greater chance of developing reorganization plans requiring creditors to write-down secured debt to its current market value. Farmers residing in areas which have experienced large declines in farmland values could benefit the most from this aspect of the new chapter.

This important provision will probably increase the bankruptcy cases that courts approve, since it improves the farmer's ability to show that reorganization will allow for continued operation of the farm. In bankruptcies filed under Chapter 11 (the rules most often used in the past), reorganization plans which call for the writing-down of debt are often denied, since creditors must approve the plans. Under Chapter 12, creditors do not have this veto power.

Chapter 12 will also allow reorganizing farmers to write unsecured debt down to the amount that unsecured creditors would receive under a Chapter 7 liquidation case. In addition, it offers producers increased ability to scale down farm operations and reduces the need for farmers to be concerned with protecting the value of collateral while a case is pending.

Cost of Risk Could Be Passed on To All Farm Borrowers

Chapter 12 likely will increase the risk or perceived risk of farm loans, souring some lenders on making new farm loans. This could reduce the amount of credit supplied to farmers and increase interest rates on farm loans. Some commercial banks and life insurance companies could end farm lending, since they have other investment opportunities.

Other lenders might make their farm lending policies more conservative, including closer screening of applicants and steeper collateral requirements. Some lenders might charge higher interest rates on all farm loans, which already average 2 to 5 percentage points above the prime commercial lending rate. If Chapter 12 results in greater loan write-downs than would have occurred otherwise, these higher costs may also be passed on to farm borrowers.

Producers Gain Increased Bargaining Power

Probably the new chapter's most significant benefit to financially stressed farmers is not the ability actually to file a case, but rather the increased bargaining power it gives the producer in negotiating with creditors. Knowing that Chapter 12 is available, creditors will be more willing to voluntarily restructure loans rather than force foreclosure.

On the other hand, the new code could reduce lenders' willingness to work with existing borrowers who are perhaps moving toward bankruptcy, but are not yet there. The creditor may not want to continue to provide financing knowing that future financial deterioration could lead to the use of Chapter 12.

Finally, Chapter 12 has the potential to place further financial burdens on agricultural banks and the Farm Credit System by increasing loan losses. Although many of the loan losses will have to be recognized by these lenders with or without Chapter 12, the new chapter may accelerate the recognition of losses. *[Steven R. Koenig (202) 786-1886]*

Chapter 12 Bankruptcy Filings

Region	12/31/86	1/31/87	2/28/87
	Cumulative filing*		
Northeast	9	18	27
Lake States	50	89	129
Corn Belt	103	212	370
Northern Plains	148	260	395
Appalachian	92	141	202
Southeast	47	94	133
Delta States	44	97	155
Southern Plains	41	75	114
Mountain States	42	102	165
Pacific States	24	65	104
U.S. total	600	1,153	1,794

*Enactment was on November 26, 1986.
Source: U.S. Federal Court System.

Potential Users of Chapter 12 1/

Net cash income 2/	Debt-asset ratio .41-.70 Farm numbers	.41-.70 % of total 3/	.71-1.0 Farm numbers	.71-1.0 % of total 3/	Over 1.0 Farm numbers	Over 1.0 % of total 3/
Positive	63,000	10.6	22,000	3.6	14,000	2.3
Negative	53,000	8.8	25,000	4.2	27,000	4.5
Totals	116,000	19.4	47,000	7.8	41,000	6.8

1/ Commercial-size farms with sales over $40,000 per year, with debt less than or equal to $1.5 million and gross cash income from farming more than half of total cash income in 1985. 2/ Net cash farm household income. 3/ Percent of total eligible commercial-size farms.
Source: USDA, 1985 Farms Cost Return Survey (FCRS).

7- to 12-percent annual reduction in outstanding debt and the relief offered by lower interest rates for 1986 and 1987.

Government Payments Still Important

In tandem with falling production expenses, direct Federal subsidies have been central to income stability. In calendar 1986, direct payments (cash and PIK) totaled $11.8 billion, with another $8.3 billion made available to eligible producers through net CCC loans. Two instruments contained in the Food Security Act of 1985, generic marketing certificates and the Conservation Reserve Program, accounted for about $4 billion of 1986 payments.

The opportunity to redeem CCC loans and/or acquire Government stocks at local prices appears to be reducing outstanding loans, while enhancing open market sales and exports of some program commodities. As a result, CCC loans as a portion of total crop sales may fall from over 14 percent in 1986 to under 5 percent in 1987. Net CCC loans for calendar 1987 are projected to be cut by more than half their 1986 level as farmers use certificates to redeem loans rather than forfeiting commodities to the CCC.

Cash Receipts To Keep Falling

Cash receipts are forecast to register a third consecutive decline in 1987. Receipts may fall 5 to 7 percent, to $126 to $128 billion. This decline is sharper than the year before, as livestock gains likely will not offset worsening crop receipts.

Corn earnings may fall significantly because of the combined effects of weak prices, a possible cutback of 9 million acres, and increased on-farm livestock feeding. Reduced acreage will affect receipts of virtually all program commodities, as will lower loan rates.

Balance Sheet Improving

Farmland values are expected to stabilize in 1987, after declining 7.9 percent in 1986. Total farm assets fell about 8 percent in 1986, and may stabilize in 1987. Both real estate and non-real estate assets may be essentially unchanged.

Total farm debt (including CCC debt) fell about 8 percent in 1986 and is expected to fall another 10 percent in 1987. Real estate debt is forecast to fall about 8 percent because of fewer loan transactions and lower land prices. Non-real estate debt may drop about 13 percent because of a decreased demand for operating loans. Farmers are borrowing less operating money because of the acreage reduction program, lower input prices, lower capital expenditures, and the receipt of advanced payments.

Farm equity in constant (1982) dollars fell almost 10 percent in 1986, but may be unchanged in 1987. In nominal dollars, equity likely eroded 8 percent in 1986, while increasing more than $10 billion in 1987.

Rates of Return Rising

Real aggregate returns to operators, assets, and equity in 1986 were higher than in 1985 due to a rise in net farm income. In 1987, returns are expected to equal or exceed 1986, supported in part by declining production expenses (especially lower interest expenses), record-setting direct Government payments, and a more favorable dollar exchange rate. The rate of return to assets likely rose from 3.3 percent in 1985 to 4 percent in 1986. The rate should rise slightly in 1987 as returns climb and farm asset values fall. The rate of return to equity likely rose slightly in 1986 and may reach 3 to 4 percent in 1987.

While the sector's rates of return should improve in 1987, the ratios of farm debt to returns on assets and of farm debt to net cash flow are expected to remain relatively high (table 33). In 1985, debt was 4.2 times cash flow and 6.9 times returns to assets. In 1986, debt was estimated to be 4 times net cash flow and 7 times returns to assets: In 1987, debt will be 3-4 times net cash flow and 5-6 times returns to assets.

Thus, farmers with above-average debt levels will continue to experience difficulty servicing their debt from current income. However, since these financial ratios are rebounding from the unprecedented levels attained during the late 1970's and early 1980's, farmers may have a bit more breathing room for debt service and other cash commitments. *[Richard Kodl and Ken Erickson (202) 786-1807]*

Upcoming Economic Reports

Summary Released	Title
June	
4	Southeast Asia
9	World Ag. Supply & Demand
10	Western Hemisphere
11	Sugar & Sweetener Yearbook
16	Agricultural Resources
17	Agricultural Outlook
18	Tobacco
19	Foreign Ag. Trade of the U.S.
22	World Agriculture
25	China
July	
7	Sub-Saharan Africa
9	World Ag. Supply & Demand
17	Agricultural Outlook
20	Dairy
22	World Food Needs & Availabilities
23	Oil Crops Yearbook
29	Fruit Yearbook

Transportation

THE CURE BILL

Congressional hearings took place in mid-May on the CURE (Consumer Rail Equity) bill. The bill, if enacted, would amend the 1980 Staggers Rail Act, which deregulated many railroad functions to help ease the deepening financial and service difficulties that rail lines experienced in the 1970's.

One focus of the CURE bill is smaller agricultural shippers who were protected by rail regulation before 1980. Congressional backers of the bill appear to believe that the Interstate Commerce Commission (ICC) has afforded inadequate safeguards to the shippers most susceptible to monopoly pricing by railroads since 1980. In the words of the CURE bill drafters, the intent of the legislation is to "restore a sense of balance to the Staggers Act...."

Bill Aims To Enhance Competition

Part of the CURE bill deals with the many issues surrounding joint routes and rates. Its goal is to increase competition between railroads. In many instances, a shipper may wish to route shipments over the lines of two or more railroads. Such routings may reduce both transit time and cost. The junction points at which two railroads exchange traffic are known as gateways. In 1980, 69 percent of all rail traffic moved through a gateway; 35 percent of all railed grain and 56 percent of grain mill products used gateways.

However, since passage of the Staggers Act, railroads have closed a large number of their gateways, often on very short notice. Railroads can close gateways either by refusing to route cars or by imposing high charges. One railroad closed over 100,000 gateways in a single action. As a result, by 1986, only 47 percent of rail traffic moved through a gateway—a 32-percent reduction. The proportion of grain shipped through gateways has fallen 43 percent, while the share of grain mill products has declined 28 percent.

A railroad's motive for closing gateways is simple—revenue enhancement. If railroad X moves a shipment from point A to point B and railroad Y moves the same car from point B to point C, the two railroads share the total revenue under a joint rate arrangement. In the short run, either railroad can increase total revenue by keeping the entire A to C movement on its own line.

The CURE bill would require railroads with practical points of interchange to establish joint routes and rates. The ICC would be required to ensure that the rates involved are reasonable and competitive. Implementation of these provisions would likely reallocate revenues among railroads and could even increase total rail revenue. Shippers who have shifted their business to trucks, due to high rail charges, would likely return to using rail. Reductions in total transportation charges would take place, because rail operating costs are lowest.

Railroads Would Have To Prove Rate Reasonableness

Under the Staggers Act, the ICC is required to determine the reasonableness of rail rates charged to "captive shippers." The act defines these as shippers who are (1) paying a rate that exceeds variable cost by 170-180 percent and (2) subject to railroad "market dominance."

To prove that market dominance exists, the shipper currently must show that no real transportation alternative exists other than the railroad in question. It is not clear what proof will sustain a claim of market dominance. Whatever proof is offered may now be countered by the railroad's showing that product or geographic alternatives exist.

Share of Freight Using Gateways Between Railroads, 1979-86

Year	All freight	Farm products	Grain	Grain mill products
	Percent			
1980	69.2	88.8	35.2	55.9
1981	68.3	59.8	30.8	64.8
1982	57.2	69.1	23.2	52.4
1983	54.9	67.2	23.2	45.5
1984	53.9	58.7	21.8	49.0
1985	47.9	47.8	17.1	41.1
1986	46.7	52.4	20.0	40.2

Source: Association of American Railroads.

Rail Freight Rate Indexes for Selected Commodities, 1970-1987

	Farm products 1/	Grain 2/	Food products 3/
	December 1984=100		
1970-72	32.2	NA	31.7
1973-75	39.8	NA	39.5
1976-78	52.9	NA	52.3
1979-81	75.5	74.9	75.4
1982-84	95.0	95.3	95.9
1985	99.0	98.3	100.1
1986	99.6	98.9	99.9
1987P	98.6	97.9	98.4

1/ Unmanufactured farm products.
2/ Included in farm products.
3/ Processed foods. P=preliminary.
NA=not available.

Source: Bureau of Labor Statistics, U.S. Dept. of Labor.

Thus, for a grain shipper, product alternatives might consist of buying one grain instead of another. Wheat might be shown to be a substitute for corn. Geographic alternatives might consist of showing that a shipper could have bought corn from Indiana as well as from Illinois, where the shipper is located.

As a result of the difficulty of sustaining a challenge under Staggers, the costs of developing data, and the limited benefits to be gained from a single successful challenge, very few protests have been filed since 1981.

The CURE legislation would remove from consideration the product and geographic alternatives by which railroads can disprove market dominance. A shipper wishing to challenge a rate would still be required to prove that viable inter- and intramodal alternatives do not exist, and that the challenged rate exceeds 170-180 percent of variable cost. Nevertheless, enactment of this section of the CURE proposal would encourage shippers to protest monopoly rates.

The CURE legislation shifts the burden of proof from the shipper to the carrier. Railroads would be required to show that challenged rates are reasonable. Further, the ICC is directed to establish guidelines to determine rate reasonableness. It is likely that this provision, in combination with the revised market dominance provisions, would result in a substantial increase in the number of challenges to rates.

The extent of challenge increases will be highly dependent upon the guidelines which the ICC adopts. In general, the enhanced ability to challenge the reasonableness of rates should tend to hold rates at current levels. Moreover, since the switching charges assessed to route cars over more than one railroad would be required to be reasonable, average switching charges would likely fall significantly.

ICC's Exemptive Authority Would Be Reduced

Under existing law, the ICC is required to exempt any firm, transaction, or service from regulation, provided (1) regulation of it is not necessary to carry out National Transportation Policy; (2) either (a) the transaction or service involved is of limited scope; or (b) regulation is not needed to protect shippers.

In April 1981, the Commission exempted all trailer-on-flat car (TOFC) shipments, including the portions of the haul made by truck. In January 1984, nearly all boxcar traffic carried by Class I and II railroads was exempted.[1]

[1] Class I railroads are those with operating revenues averaging $50 million or more for 3 consecutive years. Class II railroads are those with operating revenues averaging $10 million to less than $50 million for 3 consecutive years.

These two exemptions render nearly 14 percent of all rail car loadings exempt from regulation. Another 4 percent of all traffic is effectively exempt since it moves under contract rates. The net result is that most rail shipments of fresh and processed foods, grains, and grain products are exempt.

Shippers of these commodities, for the most part, can no longer appeal railroad pricing and service decisions to the ICC. Nor have they uniformly benefited from the widespread substantial rate declines that might have resulted from deregulation efficiencies. Shippers can still seek relief in the courts, but such proceedings are both lengthy and costly. Many shippers have reported that they cannot pay the cost of court pleadings.

The CURE legislation makes three substantial changes to the ICC's authority to exempt companies or services from regulation:

- The requirement that the Commission exempt certain firms and services is removed.
- The Commission must rule that the railroad to which the exemption applies does not have market dominance over the service under consideration. This offers the potential for reducing the broad scope of existing exemptions and would make the granting of future exemptions more difficult.
- Railroads offering exempt service would be subject to the full force of antitrust legislation.

It is unlikely that this section would result in a major restructuring of railroads or have a major impact on rates and services. Shippers and small carriers will have an easier time fighting unfair practices, though.

Unit Cost Reductions Would Be Factored into Rates

The Staggers Act prohibited general rail rate increases with one exception, inflation-based increases. The ICC allows quarterly percentage increases to compensate for inflation; the increases are calculated according to the Rail Cost Adjustment Factor (RCAF) computed by the Association of American Railroads. The RCAF is based on historical costs and represents an estimate of the costs anticipated for the next quarter. No inflation-based increase has been allowed since January 1986, when a 1.1-percent hike was permitted. The ICC rescinded the increase in October 1986 as unwarranted.

Current law does not explicitly direct the ICC to reduce rates if costs decrease, but the Commission has recently expressed the opinion that it could require such decreases. More importantly, the RCAF does not take productivity into account. For example, a 5-percent increase in costs accompanied by a 20-percent increase in productivity could actually reduce costs per car. Under existing law, however, the ICC would be compelled to permit a 5-percent rate increase even though costs per car dropped.

By contrast, the CURE bill would require RCAF's to include changes in railroad productivity. Further, should future RCAF's indicate reductions in unit costs, the ICC is directed to reduce rates that previously increased, cutting them to the level indicated by the most recent RCAF. No data are available on the number of rates that have been raised because of RCAF increases.

For farm products, grain, and processed foods, the Bureau of Labor Statistics rail rate indexes show increases of about 17, 15, and 17 percent, respectively, between June 1981 and January 1986. In contrast, if all increases permitted by RCAF had been realized, rates would have risen 29 percent.

While the CURE method of computing RCAF's is likely to result in lower values than previously, the new provisions probably will not significantly cut rates for unprocessed agricultural commodities. According to the Association of American Railroads, about 60 percent of all grain shipped by rail moves under contract rates, which are exempt from regulation. A majority of the fresh and processed food is shipped in either boxcars or TOFC's and is thus also exempt from regulation. Neither contract nor exempt rates have been subject to RCAF increases.

Revised RCAF computations together with less ICC exemptive authority could, however, temper future rate increases. If all or some shipments of fresh or processed food were to become regulated under the new CURE provisions, this would tend to hold down rates for such shipments.
[T.Q. Hutchinson (202) 786-1840]

Inputs

FORECASTING TRACTOR SALES

Farmers' expenditures for new and used tractors grew from $849 million in 1964 to over $3.75 billion in 1979. Since 1979, sales have fallen nearly 44 percent, reaching $2.11 billion in 1985.

Important variables that help in forecasting nominal tractor sales are real (inflation-adjusted) interest rates, which provide a measure of tractor price inflation, and farm sector debt-asset ratios. Given the most likely outlook for interest rates and debt-asset ratios, 1990 tractor expenditures in 1985 dollars are forecast to be from $3 to $4 billion.

Aggregate tractor expenditures reflect two important trends in farm tractor purchases over the last 20 years: (1) farmers are purchasing fewer but larger tractors, and (2) total horsepower (hp) available in the farm sector is continuing to increase. Yearly tractor sales vary around these trends, though; the high real interest rates and debt-asset ratios in the past 4 years have driven sales below trend.

For decades, technology has lowered the price of a unit of tractor power relative to the cost of labor, leading to the substitution of tractor power for labor. The use of tractor power in U.S. farming has increased an average of 65 million hp per year since 1964.

Sales of fewer but more powerful tractors reflect the technology which has made larger tractors a good investment for some types of farms. Since 1964, sales of tractors 40 hp and greater have declined an average of 2,400 units a year, but within this group, sales of tractors having more than 99 hp have increased an average of 1,800 units per year. Thus, sales of tractors 40 to 99 hp have decreased by an average of 4,200 units a year.

The trend toward fewer and more powerful tractors parallels the trend of fewer but larger farms. From 1964 to 1982, the number of farms of less than 200 acres has decreased 41 percent, while farms of 200 acres or more have increased 13 percent.

Deviations from the Trend In Tractor Sales

Tractor sales were significantly above the long-run trend from 1973 to 1980, as expanded domestic and export demand for agricultural output increased optimism in agriculture. Farmers' optimism may have led them to upgrade their farming operations by purchasing new equipment.

Also, farm equipment sales increased as cropland harvested grew; area harvested increased nearly 20 percent from 1972 to 1981. The value of farm real estate (73 percent of total farm assets in 1985) rose substantially in the middle seventies, reflecting the optimistic outlook on future returns to land. Because of rising land values and the associated equity gains, farmers were able to obtain credit to purchase tractors and other assets. Moreover, very low (even negative) real interest rates over this period, as well as tax incentives, further encouraged debt financing.

During the 1980's, declining farm exports and commodity prices, combined with rising real interest rates, led to falling farm asset values and declines in farmers' equity. This discouraged purchases of farm implements. Also, Government programs that removed land from production tended to reduce the need for new equipment.

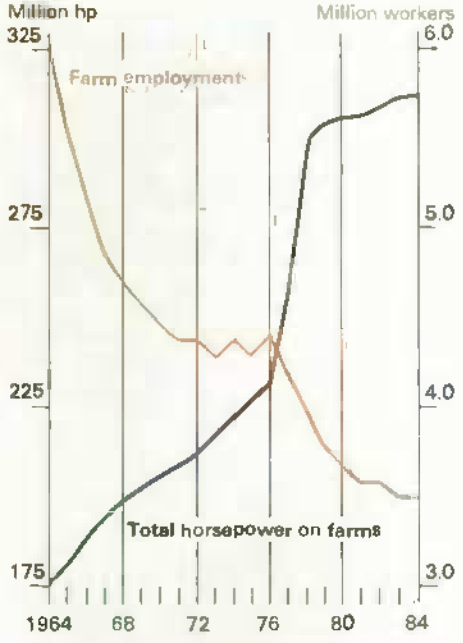
Thus, agricultural market and macroeconomic conditions in the 1980's have produced poor equity positions and high borrowing costs for the U.S. farmer, a reversal of the conditions faced in the middle to late 1970's. Consequently, throughout the 1980's, unit sales of over-40-hp tractors have been below the 1964-1986 trend and, by 1985, nominal expenditures for tractors had fallen below their 1974 level.

Recent gains in farmers' net cash income have been used to retire past debt rather than purchase additional equipment. This reduction in the debt-asset ratio should begin to improve farmers' financial ability to purchase tractors.

Forecasting Formula

An estimated equation relating farm tractor expenditures to the trend in expenditures, real interest rates, debt-

Farm Machinery Horsepower Rising While Labor Use Drops



Farms* by Harvested Acres

Harvested acres	Census years 1964	1974	1982
	1,000 farms		
1-199	2,292	1,504	1,347
200-999	393	418	412
1,000+	15	32	49
Total	2,700	1,954	1,808

*Farms with more than $2,500 in annual sales.

asset ratios, and nominal changes in tractor prices is given below:

$$EXP = 0.75 + 0.082*TREND - 0.094*PCA - 67.0*DEBT/ASSET + 0.0082*TPPI$$

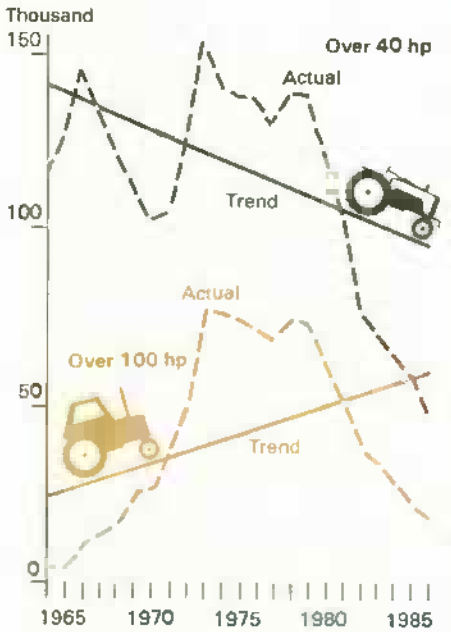
where:
EXP is estimated annual new and used tractor expenditures (in billions of dollars), TREND is used to capture a linear trend in EXP over time, PCA is the real Production Credit Association interest rate, DEBT/ASSET is the square of the debt/asset ratio in agriculture, and TPPI is the producer price index for farm tractors.

The equation was estimated using annual data from 1949 to 1985, and it explains 90 percent of the variation in tractor expenditures over those years.

The equation indicates that farm tractor expenditures have increased an average of $82 million per year during 1949-85, other factors held constant. This trend captures the combined monetary effects of greater amounts of horsepower use in agriculture and larger tractors being used on fewer but larger farms. The accuracy of forecasts using this model depends, in part, on the continuation of the estimated trend.

For the interest rate variable, the equation indicates that a 1-percentage-point increase (decrease) in the real rate of interest reduces (increases) expenditures on tractors by $94 million.

Sales of Large Tractors Trending Up, But Sales of Medium Size Falling



Farm Tractor Expenditures

	Real interest rate 1/	Debt-asset ratio 2/	PPI 3/	Total machinery expenses
	Percent		1967=100	$ billion (current $)
1970	3.95	0.17	114	1.12
1971	1.97	0.17	119	1.19
1972	2.43	0.16	123	1.42
1973	1.50	0.15	126	1.92
1974	0.33	0.16	144	2.24
1975	-0.69	0.16	171	2.46
1976	1.96	0.16	186	2.65
1977	1.23	0.17	203	2.78
1978	1.44	0.16	218	3.28
1979	1.66	0.16	240	3.75
1980	3.74	0.17	276	3.68
1981	4.76	0.18	311	3.74
1982	8.18	0.20	341	2.88
1983	8.15	0.20	360	2.75
1984	8.37	0.22	372	2.83
1985	9.10	0.24	370	2.11

1/ Production Credit Association interest rate deflated by the Gross National Product Deflator. 2/ Includes household debt and assets. 3/ Producer price index for tractors.

Tractor Expenditures in 1990 for Different Real Interest Rates and Debt-Asset Ratios 1/

Real interest rate 2/	Debt-asset ratio 2/ .16	.20	.24
	Billions of dollars		
1.0	5.3	4.3	3.2
5.0	4.8	3.9	2.9
9.0	4.5	3.6	2.5

1/ Debt to asset ratios include house hold assets. 2/ *values lie within the variables range of values since 1970.

As expected, increases in DEBT/ASSET decrease expenditures on farm tractors. A given change in the debt-asset ratio has a progressively larger impact on tractor expenditures as the ratio becomes greater. That is why the debt-asset ratio is squared to derive DEBT/ASSET in the equation. For example, the results of the equation imply that a 0.01 increase in the debt-asset ratio, when the ratio equals 0.16, decreases tractor expenditnres by $210 million. However, with a larger ratio of 0.24, the estimated decrease in tractor expenditures for a 0.01 increase is $320 million.

The last variable in the regression equation is the producer price index for tractors. This term is used to account for inflation in tractor prices. When inflation raises both prices received and prices paid by farmers, expenditures necessarily rise.

If we assume that the relationships estimated above will continue in the future, tractor expenditures in 1985 dollars can be forecast for 1990 based on estimates of the 1990 values of the debt-asset ratio and real interest rates. However, estimating the 1990 values for PCA and DEBT/ASSET is difficult, because different values result from changes in agricultural market and macroeconomic conditions. Further, even with an accurate selection of debt-asset ratio and the real interest rate faced by farmers, actual tractor expenditures in 1990 may vary because of unforeseen factors.

If real interest rates and the debt-asset ratio for the farm sector fall to near their 1970's lows, going to 1.0 percent and 0.16 respectively, tractor sales may climb to $5.3 billion by 1990. If real interest rates rise to 9.0 percent and the debt-asset ratio remains near 0.24, tractor sales for 1990 may be as low as $2.5 billion.

In all likelihood, the debt-asset ratio for the farm sector will be falling toward 0.20 during the next 3 years, from .24 presently, and real interest rates may drop to near 5 percent. With these assumptions, tractor sales can be forecast to reach between $3 and $4 billion in 1985 dollars by 1990. *[LeRoy Hansen and Carlos Sisco (202) 786-1458]*

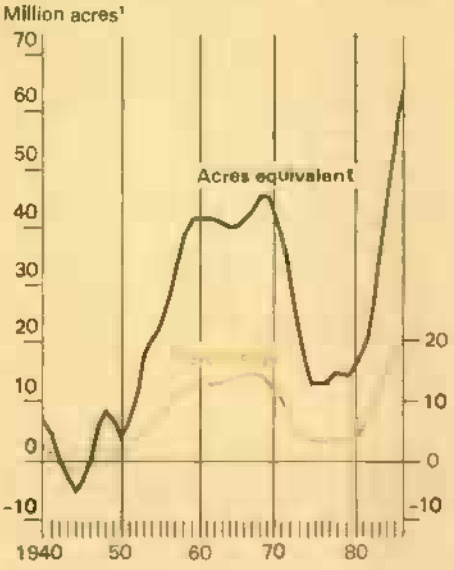
Excess Capacity Update

Excess capacity in U.S. agriculture is the difference between potential supply and commercial demand at prevailing prices (see *Agricultural Outlook* for October 1986). Potential supply is actual production plus potential production from diverted acres. Revised 1985 and preliminary 1986 data indicate that estimated long-run excess capacity, expressed as a 7-year moving average, has been higher the last few years than previously estimated. The current 7-year average of excess capacity of the entire agricultural sector is around 9 percent of production. In the crop sector it can be expressed as an acreage equivalent of more than 60 million acres or close to 20 percent of the area of principal crops.

Although the 7-year moving average of estimated excess capacity increased in 1986, the estimate for 1986 alone declined significantly because of a reduction in commodity supply and an increase in utilization (domestic and exports), especially for wheat, rice, and cotton. The export increase stems from lower commodity prices, a favorable exchange rate, and export enhancement programs. The supply reduction results from a 17.5-million-acre decrease in harvested area. This decline is greater than the 14-million-acre increase in set-aside area from 1985 to 1986.

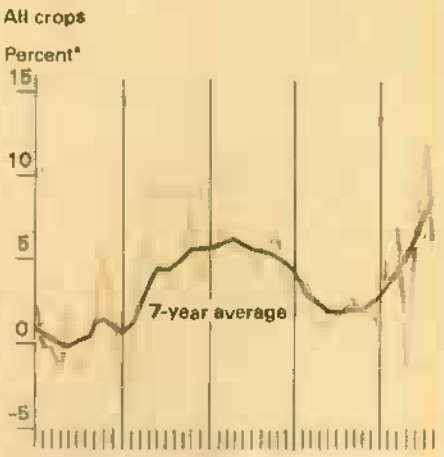
Current expectations are for somewhat smaller production and larger exports in 1987 than in 1986. Thus, excess supply will likely be smaller again. The expected increase in acres devoted to conserving uses, normal yields, and no change in policy should further help shrink short-run excess capacity in 1987. *(Dan Dvoskin (202) 786-1403)*

Over 60 Million Acres Are Excess

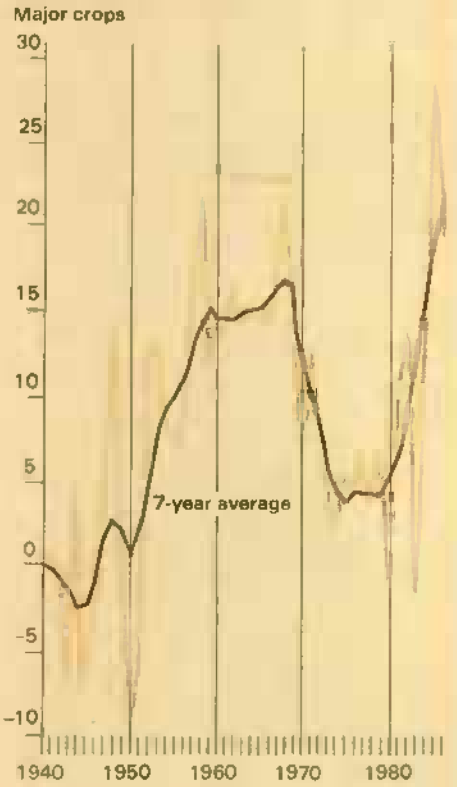


¹Harvested acreage.
²Percent of harvested acreage.
1986 preliminary

Excess Ag Capacity Now Greater Than In 1960's



*Percent of crop production.
1986 preliminary.



Annual Excess Capacity for Wheat

Item	1985	1986 1/	Change Percent
a. Harvested acres (million)	64,734	60,668	-6.3
b. Average yield (bu./acre)	37.5	34.4	-8.3
	Million bushels		
c. Production (a * b)	2,425	2,087	-13.9
d. Imports	15.0	12.0	-20.0
e. Total supply (c + d)	2,440	2,099	-14.0
f. Domestic utilization	1,045	1,134	8.5
g. Total exports	915	1,025	12.0
h. Total disposition (f + g)	1,960	2,159	10.2
i. Excess supply (e - h) 2/	480	-60	-112.5
j. Noncommercial exports	294	340	15.6
k. Reduced program acres (million)	18.8	20.5	9.0
l. Potential yield on reduced acres (bu./acre)	30.0	27.5	-8.3
m. Potential production from reduced program acres (k * l)	423	423	0.0
n. Excess capacity (i + j + m)	1,197	703	-41.3
o. Percent excess capacity (n/(e + m) * 100)	42.0	28.0	

1/ Preliminary. 2/ Change in stocks.

The Farm Economy May Have Turned the Corner

There are signs that financial conditions affecting farmers may have finally begun to turn up. It appears that for the vast majority of agricultural producers, earnings on investments are now returning to levels consistent with the more stable, slow-growth 1960's and early 1970's.

"Good news amid bad" is often the situation during the initial stage of an ailing industry's recovery. This is because economic forces—such as a 60-percent fall in land values in the upper Midwest—also provide the foundation for eventual stabilization and recovery. In this case, the rebound will be based on farm real estate that has become a bargain compared with its price 4-5 years ago.

Land prices in the 1980's have fallen by one-half to two-thirds in parts of the western Corn Belt, and nearly two of every three stressed commercial-size farmers in the United States live in a 10-state region of the upper Midwest. Since this area has been the hardest hit by the farm economy crunch, it is a significant area to examine for signs of beginning recovery.

Therefore, an analysis was done on whether Midwest land values today can be supported by current crop prices and Government benefits. Data used come from the 1985 and 1986 USDA Farm Costs and Returns Surveys. The results are based on data received from approximately 400 corn and soybean farmers. Because the survey is probabilistically based, these 400 operators represent about 60,000 farms of similar size and type in Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Nebraska, Iowa, and Missouri.

The question analyzed was: Can management afford to pay current market values for farmland, given the production costs of this operation and current market interest rates? This question is critical to operators considering expansion or purchase of rented land, and to both operators and lenders examining the feasibility of debt restructnring.

Key assumptions in the analysis include the following:

- *Costs and returns are on a whole-farm basis.* Operator cost information is for owned and rented land combined, except in share-rental arrangements involving seed, fertilizer, and chemical costs, for which an adjustment is made.

- *Participation in the Government corn program is assumed.* Because program participation rates have increased from 53 to 88 percent during 1984-87, and because of the higher price risk associated with nonparticipation, all farms are assumed to participate. Open market sales are assumed to occur if the crop-year average market price exceeds the CCC loan rate for corn or soybeans. If participation in the 15-percent paid land diversion boosts the farmer over either the $50,000 or the $250,000 payment limit for corn, participation in that option is not assumed.

- *Land values are based on the farmers' valuations,* unless the producer owns less than 100 acres or the value of the farmhouse is disproportionately large so as to make real estate valuation difficult. Values for 1986 and 1987 are adjusted to reflect annnal land value changes in USDA surveys.

- *Farm survey data are projected for 1986-87.* The results for 1984-85 are based on farm survey data collected in 1985-86. Input price changes for seed, fuel, fertilizer, labor, repairs, etc., are updated for 1986-87. Increasing idled acreages due to Government program changes, as well as the substantial costs of weed control on idle acreage, are modeled.

- *Average first-quarter interest rates at Federal Land Banks* (FLB's) are used as the financing rate for land purchases. These are 11.5, 12.15, 12.3, and 11.25 percent for 1984-87. respectively. Excluded from the cash flow exercise are loan principal repayment, which is an increase in net worth rather than an economic cost, and farm-related and nonfarm family income, which averaged from $16,000 per family in 1984 to $21,000 in 1987.

Have Land Values Fallen Enough In Relation to Cash Flow?

In 1987, for the first time since 1984, the typical corn/soybean farm in the Midwest could meet all cash expenses on a piece of land purchased at 11-percent interest with a 25-percent downpayment. For the sample of 400 farms, projected 1987 gross farm receipts average $112,400, including $25,100 in Government benefits. Total cash expenses, including interest on real estate, but not including principal repayment, are projected at about $112,000 per operation, so cash receipts would about equal cash expenses.

In contrast, survey data indicate that corn/soybean farms in the Midwest in 1984 averaged cash costs $41,200 higher than receipts.

Net Cash Returns on Midwest Corn/Soybean Farms

	1984	1985	1986	1987
		Dollar		
Total gross farm receipts	117,211	132,172	117,492	112,436
Commodity sales	106,017	38,282	--	--
CCC loans	--	80,733	90,192	80,411
Direct Government payments	11,194	13,157	27,300	25,134
Paid land diversion	--	--	--	6,890
Total cash expenses	158,403	142,635	127,145	112,021
Interest on real estate	79,519	63,481	54,010	44,239
Other cash expenses*	78,884	79,154	73,135	67,782
Net cash returns	-41,192	-10,463	-9,652	415

*Includes non-real estate interest and cash capital replacement expense. Loan principal payments are not included in this analysis, nor are other farm-related and off-farm income, which averaged from $15,870 per farm in 1984 to $21,111 in 1987.

Yields, Prices, and Expenses Underlying Cash Flow Calculations

	1984	1987
B. Average acres in farm	466	470
CORN ACREAGE, YIELDS AND RECEIPTS		
B. Base acreage	254	264
C. Idled acreage	75	92
D. Harvested acreage	229	172
E. Yield per acre, bushel	115	142
F. Price per bushel 1/	2.63	1.87
G. Commodity sales	69,309	44,252
H. Deficiency payment after payment limits 2/	11,194	25,134
I. Diversion payment 3/	NA	6,890
J. Total gross receipts	80,503	76,276
SOYBEAN ACREAGE, YIELDS, RECEIPTS		
K. Harvested acres	190	183
L. Yield per acre, bushel	33	41
M. Price per bushel 1/	5.84	4.77
N. Total gross receipts	36,708	36,159
EXPENSES		
O. Production and nonreal estate interest 4/	68,522	60,560
P. Capital replacement (cash)	10,362	7,222
Q. Real estate value (first quarter)	921,961	574,313
R. Real estate interest rate	.115	.1125
S. Real estate interest expense 5/	79,519	44,239
T. Total cash expenses	158,403	112,021
U. Net cash surplus or deficit	-41,192	415

1/ Market price in 1984, CCC loan rate in 1987.
2/ Government payment limitations reduced deficiency payments by an average of $190 per farm in 1984, and projected $1,344 in 1987. 3/ $2.00 per bushel of normal yield times 15 percent of corn base acreage. Did not apply if deficiency payments exceeded payment limits. 4/ Includes expenses for chemicals, fertilizer, seed, hired labor, fuels, equipment repair, marketing, custom work, irrigation, leasing and other production and overhead expenses. 5/ After downpayment of 25 percent.

Thus, the highest feasible ratio of real estate debt to value a farm can afford increased from about 35 percent in 1984 to about 75 percent in 1987, mainly because of the 40-45 percent decline in land values for the farms sampled. Although gross receipts per farm fell $20,000 between 1985 and 1987's estimated level, this is more than offset by a nearly $20,000 drop in real estate interest expense and an additional $10,000 decline in other cash expenses.

The importance of the large fall in land values during the middle 1980's, and the decline in interest rates that occurred during 1985 and 1986, is shown in the mirroring trend of declining interest burdens and the number of farms that can purchase land and still cover cash costs. Only about one in 10 corn/soybean farmers could have achieved positive cash flows from 1984 land purchases at market rates current then. But, by 1987, with the interest burden of buying a farm down over $30,000, three of five farms could fully meet the interest expenses associated with land purchases, assuming a 25-percent downpayment.

Farmland contracts providing seller financing are often available at interest rates of 7 to 10 percent. Projections indicate that most of the sample farms can meet interest payments, even on loans with no downpayment, if mortgage interest rates of 7-9 percent are available and land is priced at beginning 1987 values.

Medium-size commercial farms, with annual sales between $100,000 and $500,000, may be the most competitive investors in the land markets in 1987. This is because the $50,000 payment limitation, which applies to a major part of Government deficiency payments and to all paid land diversion payments, will likely apply to many operations with sales above $500,000, discouraging them from buying land for expansion. Of the largest specialized corn/soybean farms in the Corn Belt, 1,500 to 2,500 may have Government payments reduced for the 1987 corn crop because of the payment limit, with the cuts averaging from $10,000 to $15,000 per farm. The "cotton effect"--the past pattern whereby the largest cotton producers have received a lower proportion of Government payments to commodity receipts than smaller producers—will also materially affect the largest corn producers in 1987.

Enterprises' Income Strength Is Underpinning Financial Stabilization

For financial recovery to occur broadly in the farm sector, the improved real estate cash flow of Midwest corn/soybean operations will also need to be experienced by other farm enterprises. Consistent with this, substantial increases in 1987 net cash income are currently projected for several major commodity groups. These enterprise income gains result from an income gain of nearly $2 billion for the farm sector overall, and are likely to be shared among most regions of the country.

Lower cotton production costs may result in a 40- to 50-percent increase in cotton net receipts. The South will also benefit from continuing strength in poultry returns, while both the South and West are gaining from strong feeder cattle prices in 1987. Dairy net returns one-third higher than 2 years ago will likely benefit the Lake States and Northeast, as well as States as widespread as California and Florida.

Why Cash Flow Results May Be Understated

- Land values per acre for the high-quality land of the sample farms were about 130 percent of statewide averages for land of all types. Corn/soybean land was valued at about 200 percent of the value of a typical acre in Nebraska (which has a much higher proportion of rangeland than most States).
- Government payment reductions for more than 3,000 operations would probably not occur to the extent estimated, because of the treatment of landlord and operator parcels as one farm in the analysis. (A whole-farm approach was taken to allocate costs per acre accurately.)
- Costs associated with an average of 40 acres of non-corn or soybean land were included in the analysis, while returns associated with these additional acres were not.
- Other farm-related income (e.g., from custom work) and off-farm income were not included in the analysis.
- Record corn and soybean yields in the Corn Belt in 1986 were not modeled for 1986 nor projected for 1987.
- Interest rates less than the modeled 11.25 percent typical of Federal Land Banks in the first quarter of 1987 may now be available from farm lenders, including local FLB's, and also through individual sellers of farmland.

What Farmers Can Afford: Highest Feasible Real Estate Debt-Asset Ratios

Year	Sales class of farm: Less than $100,000	$100,000 to $500,000	More than $500,000*
	Percent		
1984	.24	.38	.48
1985	.53	.69	.64
1986	.54	.69	.60
1987	.71	.84	.72

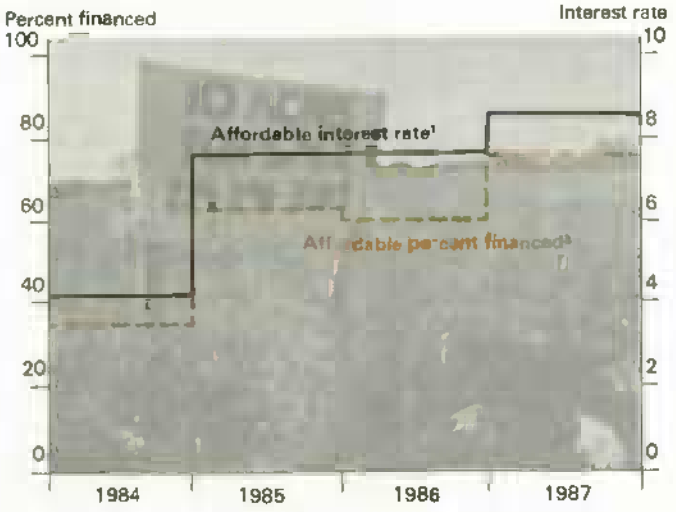
*For farms with sales greater than $500,000, payment limitations reduced direct Government payments by about $2,300 in 1984, $4,000 in 1985, $7,400 in 1986, and $14,000 in 1987. This is the primary reason feasible debt-asset ratios are lower among the largest farms.

Note: As commodity prices and CCC loan rates declined in the middle 1980's, the number of farms classified as having sales of more than $500,000 also declined, from 7,928 in 1985 to 5,847 in 1987.

The $3-$4 billion improvement over 1986 in meat animal cash income this year provides much of the basis for optimism about the Midwest's financial prospects.

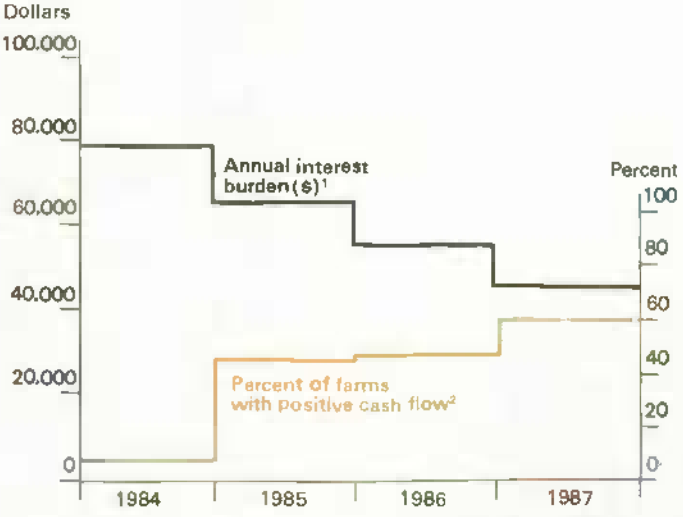
Consistent with the cash flow analysis in this report, specialized corn/soybean farms in early 1986 were much less financially stressed than cash grain farms in general. Cash grain performance is projected to be the weakest sector in agriculture in 1987. This major farm type will provide receipts of about $24-$28 billion to the sector from corn and soybeans ($16 billion), food grains ($6 billion), and other feed grains ($4 billion). While their income levels are weak, cash grain operators' farm equity is projected to increase more than $5 billion in 1987, and their debt-asset ratio will decline by one-tenth.

Farmers Can Now Afford To Finance More Land & Pay Higher Interest Rates



¹Highest interest rates corn/soybean farmers in the Midwest could afford on a 100-percent financed land mortgage and still meet all cash expenses.
²Highest proportion of land value a farmer could afford to borrow and still meet all cash expenses.

Farmers' Cash Flow Improving as Interest Burden Declines



¹Interest expenses associated with land purchases at prevailing land values and interest rates.
²Proportion of commercial-size corn/soybean farms in the Midwest

Midwest Leading Prospective Recovery

Current prospects for farm sector financial recovery are strongest in the Midwest. Commercial farmers, heavily concentrated in this region, are poised to benefit from

- moderating production and interest expenses,
- lower land prices, which are being absorbed in the balance sheets of both farmers and lenders,
- higher Government payments, which offset acreage reductions,
- markedly higher hog and cattle profits, with continuing gains in dairy returns.

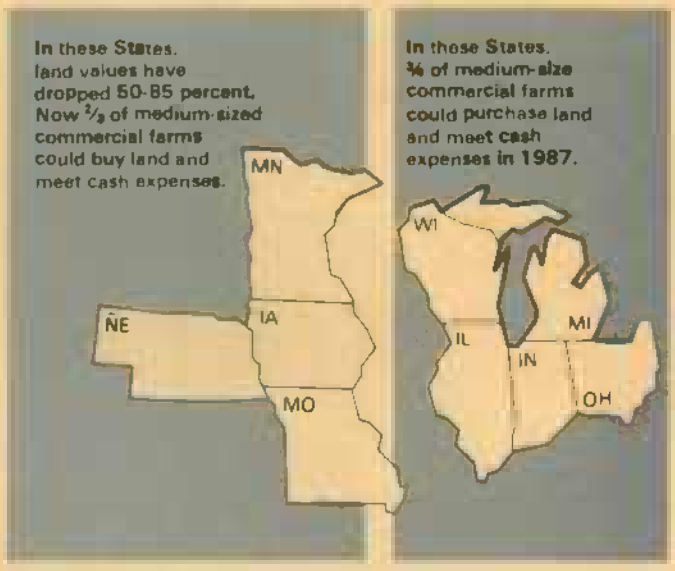
Evidence of a rebound is beginning to turn up in this region. The profit and loss reports of farm management associations are published in the late spring; association reports from Iowa, Kansas, Minnesota, Nebraska, and North Dakota indicate marked strengthening in 1986. While members of these associations are not statistically selected to represent their areas, the earnings trends in their reports reflect the favorable impact of higher livestock prices and production-cost containment among commercial-size farms.

Regions characterized by a high concentration of cash grain farms, such as Illinois, show somewhat less evidence of a rebound beginning in 1986. While declining debt and moderating interest rates may strengthen cash grain returns, fall-offs from the 1985-86 record-setting yields for corn and soybeans could lengthen the recovery process.

At the beginning of 1986, 10 upper Midwest States (Minnesota, North Dakota, South Dakota, Nebraska, Iowa, Kansas, Oklahoma, Missouri, Wisconsin, and Illinois) each had 4,000 or more commercial farms with a high probability of being unable to repay their loans. These States also tended to have the highest incidence of financial stress, averaging between 15 and 25 percent of commercial farms. This region is now leading the economic turnaround in agriculture.

Net cash income in the five eastern States in this high-stress region increased nearly 60 percent between 1984 and 1986, from about $7.3 to $11.5 billion. Cash income increased 50 percent to about $7.8 billion in the chain of States from North Dakota to Oklahoma. This strengthening will continue in 1987, especially in these Plains States, which contribute nearly one-third of U.S. cattle production and nearly one-sixth of hog output.

Upper Midwest Hardest Hit, May Be Leading Into Recovery



Net Cash Income in the Financially Stressed Upper Midwest

	1984	1985	1986P	1987F
	$ billion			
Five western Corn Belt States 1/				
Net cash income	7.254	9.910	11.500	12.000-13.000
Livestock receipts	16.789	16.274	17.100	17.500-18.500
Direct Government payments	2.278	2.003	3.450	4.500-4.800
Five Plains States 2/				
Net cash income	5.420	6.914	7.800	8.000-9.500
Livestock receipts	10.625	11.692	11.700	12.000-13.000
Direct Government payments	2.111	1.966	3.400	4.100-4.500

1/ Illinois, Iowa, Minnesota, Missouri, Wisconsin.
2/ Kansas, Nebraska, North Dakota, Oklahoma, South Dakota.
P = preliminary. F = forecast.

Land Value Stabilization Likely

While USDA surveys indicate land values fell 8 percent in 1986, evidence from early 1987 indicates that a broad stabilization trend may be starting. Recently, there have been widespread reports of land price strengthening, particularly for good quality land, in regions of Iowa, Minnesota, the Dakotas, and Nebraska. These areas were the most severely affected by financial stress and land price falls in the early 1980's.

The reports were supported in first-quarter land value surveys by the Federal Reserve Banks of Chicago, Kansas City, Minneapolis, and Richmond. The banks reported land values about 1 percent higher than in the fourth quarter of 1986. This gain compares with quarterly declines of 3-5 percent during 1986, moderating to 1-4 percent drops in the fourth quarter. Judging from the change in the moving average of the Dallas bank survey, first-quarter land prices may have gained in the Dallas district as well.

Thus, the five surveys all suggest land price strengthening during January-March 1987. Current reports and a commercial bank survey suggest that land prices gained strength in April and May as well. If this positive trend in

Interest Rates and Government Payments Critical to Recovery Prospects

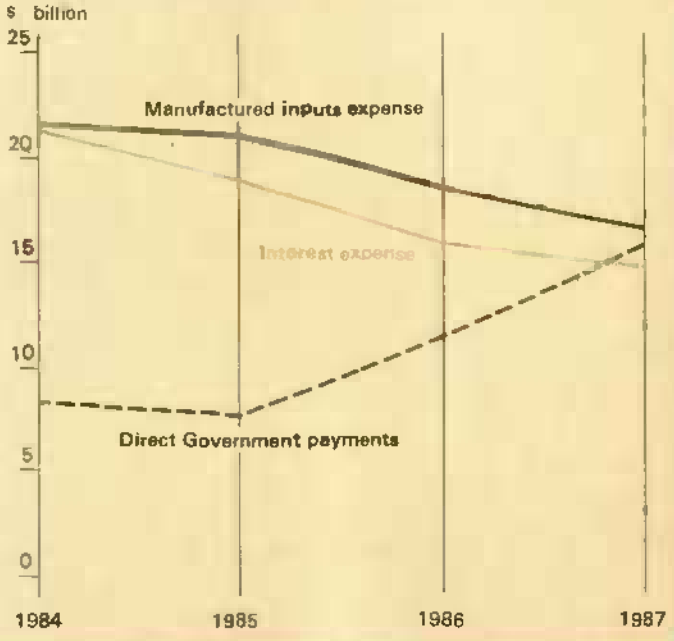
Interest rates deeply affect both farmers and farm lenders. A major increase in interest rates charged on production and real estate loans would undermine projections for recovery. Had interest expenses continued at $20-$22 billion as in the early 1980's, the substantial gains in net cash income over the last 3 years would not have occurred.

The Federal Reserve Board of Governors has recently reported that during 1986 the deterioration in agricultural loans among commercial banks was reversed. Net charge-offs of non-real estate farm loans declined $100 million, and delinquent loans declined from $3.6 billion in 1985 to $2.9 billion. Average interest rates on non-real farm estate loans at commercial banks declined from 14-15 percent during 1983-84 to 11.2 percent in the first quarter of 1987. The financial condition of agricultural lenders is likely to improve slowly during 1987-88, raising hopes that stronger lenders will be able to support farm credit needs with competitive interest rates.

Government payment levels are a second financial factor that is critical to recovery prospects. Direct Government payments averaged $8.5 billion during 1983-85. For 1986-87, they are projected to average about $5 billion higher. There are several issues central to the role of Government payments in agriculture:

- Six of the 10 States that lead in Government direct payment had increases of two-thirds or more from 1985 in their 1986 direct payments. These States—Iowa, Illinois, Kansas, Nebraska, Minnesota, and Indiana—are all located in the hard-hit Midwest.
- Government payments in 1986-87 are providing a basis for the financial turnaround. Direct payments equaled 5.8 percent of farm receipts during 1983-85, but are rising to about 12 percent in 1984. These payments will continue to provide support to the farm sector during the rest of the 1980's.
- While stressed farms receive the highest proportion of Government payments to sales, payments are received by producers of all sizes and financial conditions. Payments received by both financially stressed and strong farmers act to support land values throughout the sector.

Farm Income Being Supported by Lower Expenses, Rising Government Payments



land values continues, it will be because financially strong operators are showing renewed interest in real estate investment.

Nationwide, approximately 350,000 commercial farms were able to meet all interest and principal obligations as of January 1, 1986. These operations constitute more than 50 percent of all commercial farms; they have more than $150 billion in net worth and an aggregate debt-asset ratio of less than 20 percent. Their nearly $25 billion of net cash farm income in 1985 compares with $2.7 billion for nearly all other commercial farms. In addition, these full-debt-service operators had an average of $20,000-$25,000 in off-farm income. Thus, for every commercial farmer who may not be able to repay all debts, there are three to four with sufficient income and financial strength to enter the land market.

Cheaper Interest Rates Buoying Land Demand

The primary incentive prompting an investor to buy farmland is the expectation of future profit. While real farm income levels remain lower than in the grain export boom

Land value Change from Previous Quarter

Bank 1/	1985 IV	1986 I	1986 II	1986 III	1986 IV	1987 I
			Percent			
Chicago	-3.3	-3.1	-1.8	-4.0	-1.4	.4
Dallas 2/	-3	-5.1	-6.3	-4.5	-.6	-.3
Kansas City	-5.5	-3.4	-3.3	-2.9	-4.1	.8
Richmond	.1	-1.8	-.1	.3	-2.3	.9
Minneapolis 3/	-9	-8.6	-5.6	-4.4	-4.7	2.7

1/ Federal Reserve Bank conducting the survey. 2/ Excluding pasture and irrigated land. Three-quarter moving average. 3/ Excluding pasture and irrigated land. Because of changes in survey question wording in 1987, first-quarter 1987 estimates may be subject to an upward bias.

Net Cash Income and Debt-Asset Ratios by Enterprise, 1985-87

	Cash grain	Cotton	Vegetables, fruit, nuts, nursery, greenhouse	Poultry	Dairy	Meat animals	Total
			$ billion				
Net Cash Income							
1985	10.2	1.9	11.8	4.9	6.2	6.7	44
1986P	8.7	1.3	11.9	5.4	7.1	7.4	45.3
1987F	6-7	1.5-2	12.5-14	6-7	7-9	8.5-10.0	48-52
Debt-Asset Ratio				Percent			
1985	40	49	21	18	29	16	25
1987F	36	44	19	16	26	14	23

P = preliminary. F = forecast.

Key Indicators of the Farm Economy

	1984	1985	1986 P	1987 F
		$ billion		
Farm debt	199	192	176	155-160
Farm equity	657	579	535	540-550
Net cash income	39	44	49	48-52
		Ratios		
Times interest earned 1/	2.9	3.4	4.2	4.0-5.0
Income return on assets	.03	.03	.04	.04-.05
Total return on equity 2/	-.15	-.13	-.08	-10-1.0

1/ Interest expense divided by net cash income before interest expenses. 2/ Includes real capital gains. P = preliminary. F = forecast.

Net Farm Income of Operators in Midwest Farm Business Management Associations, 1984-86

	Ill.	Iowa 2/	Kan.	Minn.	Neb.	N. Dak.
			$			
1984	8,624	21,162	6,334	12,621	-15,087	15,138
1985	22,037	16,789	4,822	8,257	20,785	18,050
1986	21,575	40,780	17,655	30,358	37,580	19,824
Average number of farms reporting	3,614	190	476	236	111	303

1/ Farm recordkeeping and management organizations assisted by State Cooperative Extension Services and Departments of Agricultural Economics of Land Grant Universities. 2/ Northwest Iowa Farm Business Association.

of the 1970's, income and the ability to meet cash costs have improved during 1986-87. Debt and interest burdens have also been reduced.

However, concerns about long-run business growth in agriculture continue to make investors cautious. Thus, several Federal Land Banks have recently attempted to change the "wait for the bottom" psychology of the land market. They have introduced innovative programs to reduce bank inventories of repossesed farmland. The most successful program was conducted by the St. Paul Federal Land Bank. It succeeded in attracting financially strong farmers with considerable cash reserves to enter the market in a major way.

The St. Paul program featured (1) large downpayments, (2) concessionary interest rates for a limited period, and (3) an intermediate-length term with a balloon payment of remaining principal. For example, top-quality farmland was offered for 40 percent down, with the remaining principal financed at 4.9 percent for 3 years, after which the still-remaining principal comes due.

This program, run for 60 days, succeeded in generating sales of nearly 400,000 acres, totaling $168 million. It concluded March 15th. The bank received cash for nearly half of the sales amount, with financing averaging 7.6 percent for the remainder. Each of the four States in the St. Paul district substantially surpassed its sales goals. More than half of the bank's land inventory was sold for amounts averaging 4 percent higher than appraised values.

Financial Position of Stable and Stressed Commercial-Size Operators, January 1, 1986*

	Farmers with financial stability: Servicing all their debt	Servicing some of their debt**	Servicing none of their debt**	All	Farmers with potential loan losses
		$ billion			
Cash farm income	24.2	.8	-2.4	22.6	-1.1
Off-farm income	8.3	.7	.8	9.8	1.1
Debt	36	19	6.4	61.5	32.6
Assets	188.5	56.2	72.6	317.3	35.5
Net worth	152.4	37.2	66.2	255.8	2.9
		Thousand			
Farm operators	335	87	123	565	102

*Operators with sales or value of production greater than $40,000 in 1985. Source: USDA Farm Costs and Returns Survey, 1985. **Many farms unable to fully service their debt are still defined as financially stable because their assets are large relative to their debts.

Progress in Farm Finance

While severe financial stress continues in 1987 for many farm families, a startling improvement has occurred in the financial condition of the agricultural sector compared with conditions during the depth of the farm recession in late 1984 and early 1985. At that time, cash production costs had not yet begun their steep descent, crop and livestock prices were weakening, and the availability of credit was a major concern. Now, several factors have improved:

- Cash production expenses for 1987 are nearly $20 billion lower than in 1984, and interest expenses will be $6-$8 billion lower. Farm sector debt will be down by $40 billion.
- Net cash income for 1987 is forecast to be nearly 30 percent higher than in 1984. In 1982 dollars, it will be 15-18 percent more.
- Income return on equity for 1987 is projected to be higher than all but 3 years since 1960 (1972-74). The total return on equity (income plus real capital gains) will show substantial improvement in 1987, and may become positive for the first time since 1979.

Many of these changes have been achieved through very difficult cost-cutting processes, loan write-offs, and costly agricultural policies. However, it is evident that the farm sector, as a whole, is now stronger financially than it was 2-3 years ago.

Financial Improvement Since 1984

	1984	1987F
	$ billion	
Cash production expense	116	96-98
Net cash income	39	48-52
Total debt (excluding operator households)	189	155-160
Change in net worth from the year earlier	-87	5-20
	Percent	
Debt-assets ratio	23.2	21-23
Income return on equity	1.0	3-5

F = forecast.

Instead of depressing land prices, the psychological lift provided by this inventory reduction program appears to have strengthened one of the softest land markets in the United States. In response to the success of the FLB land sale, a number of commercial banks in the four States of the St. Paul district have independently begun similar land sales programs.

The land inventory held by the Omaha Federal Land Bank began to decline in March and as of early May there were sales pending for more than 150,000 of the bank's 550,000-acre inventory. The Federal Land Bank of Jackson, whose district includes hard-hit Louisiana and Mississippi, reports that current land sales exceed repossessions by 2 to 1.

Serious concerns remain about the bearish market impact of the 1 to 2 million acres of repossessed farmland held by the Federal Land Banks, plus land held by commercial banks and life insurance companies. However, this land inventory does not appear to be depressing prices further at this time.

Temporary Stabilization or Long-Term Recovery?

Economic fundamentals will play a large role in determining whether the recent strength in the farm economy will turn into a long-run financial recovery. Several key income and financial indicators have become positive:

- The cost of servicing debt will continue to become less burdensome through 1987 and into 1988, as farmers use available cash to retire debts rather than buying new capital, and as institutional interest rates in agriculture remain below mid-1980's levels. For example, the average farm mortgage interest rate among banks in the Chicago Federal Reserve District was 10.25 percent in late March, 1.5 percent lower than a year earlier.
- Under the current farm bill, Government direct payments and acreage reduction programs, in combination with the increasingly successful Conservation Reserve Program, will undergird farm income and limit the growth in feed and food grain supplies.
- Farm equity is stabilizing in 1987 and could increase in the remainder of the 1980's, as bargain land values increase investor interest. Cash rents of 7-10 percent of land values, now prevalent in the Midwest, are much higher than traditional.
- Farm exports are rising.
- Both current and deflated net cash income will continue strong. Net cash income likely will remain in the $42-$52 billion range in 1987-89.
- Current returns on assets will be higher than the stable 1960-71 period, and total returns on equity will likely be positive in 1987-89, after being markedly negative during 1981-86.
- Farmers and lenders have learned about the importance of cost containment, and these painful lessons will continue paying dividends in years ahead. Tax reform has substantially lessened the benefits of overinvesting in agriculture that prevailed in the 1970's.

It is unlikely that oil prices will reach former levels of $30-$40 per barrel, that the dollar will rise enough to reduce exports, or that an economic recession of 1981-82 proportions will occur. Given these projections, agricultural business conditions may improve through 1988-89.

Beyond macroeconomic factors, the financial condition of agriculture in the 1990's will depend critically on export markets and changes in production costs. If export growth continues as now anticipated, and production costs continue to drop in the near future, the financial stabilization and turnaround projected to occur during 1987-89 will very likely become a major recovery that bridges the end of one decade and the beginning of the next. *[Greg Hanson, Gary Lucier, and Jim Johnson (202) 786-1807]*

The Outlook for Cereal Production in the Third World

Cereal grain production in third world countries over the last 20 years has been increasing faster than population, with more of the increase from rising yields than in the past. However, consumption per capita has been rising even more rapidly. Consumption will continue to climb if economic development continues, so production is falling behind consumption. Although imports in the short-term may be hampered by foreign exchange shortages, foreign debt, and current slow economic growth, the third world is already dependent on cereal imports and may become even more so in the future.

Crop Production Lags Behind Use

Over the past two decades, third world production of both food grains and coarse grains has increased more rapidly than population, especially food grains (notable exceptions include some countries in Sub-Saharan Africa, where population is increasing faster than production and consumption). Despite the output gains, rapidly growing populations combined with economic expansion have forced the developing countries to steadily increase their imports.

Thus, domestic production has been declining as a percentage of the sum of domestic production and net imports. Self-sufficiency is trending down more rapidly in coarse grains than in food grains.

The developing countries were net exporters of coarse grains during the 1960's and early 1970's. Since the mid-1970's, however, their coarse grain imports have increasingly overshadowed exports because of the strong demand created by growing domestic livestock production, especially poultry. Rising incomes and urbanization in the higher income developing countries led consumers to substitute livestock products and other more costly foods for such staples as coarse grains, roots, and tubers (see *Agricultural Outlook* for May, pages 18-22).

The Green Revolution of the 1960's, based on introduction of high-yielding varieties, has greatly increased wheat output in the traditional spring-wheat-growing countries. The gains have reduced and in some cases eliminated imports into these countries.

In tropical climates, though, the Green Revolution has not significantly expanded wheat output. Demand for wheat products continues to increase there and is met largely by imports. Thus, the developing countries' wheat imports have grown 100 percent since the early 1960's, even though their wheat output has risen more than 150 percent.

If these trends continue, the third world will remain a growing market for food grains and coarse grains. The driving force behind these trends is rising incomes.

Improved Varieties, More Fertilizer, & Irrigation Are Boosting Output

Third-world crop yields are increasing with improved varieties, more irrigation, and additional fertilizer. Therefore, many developing countries are now less dependent on bringing new land into production in order to increase output. However, some countries, particularly those in Africa, are only now putting into place the agricultural research and extension capacity needed to make the transition to improved varieties that give large yield increases with irrigation and adequate fertilization.

During the 1960's, expanding area and rising yields made equal contributions to increasing cereal output in the developing world, but by the early 1970's yields were making a larger contribution. The expansion of area slowed in the early 1980's, while yields have continued to rise.

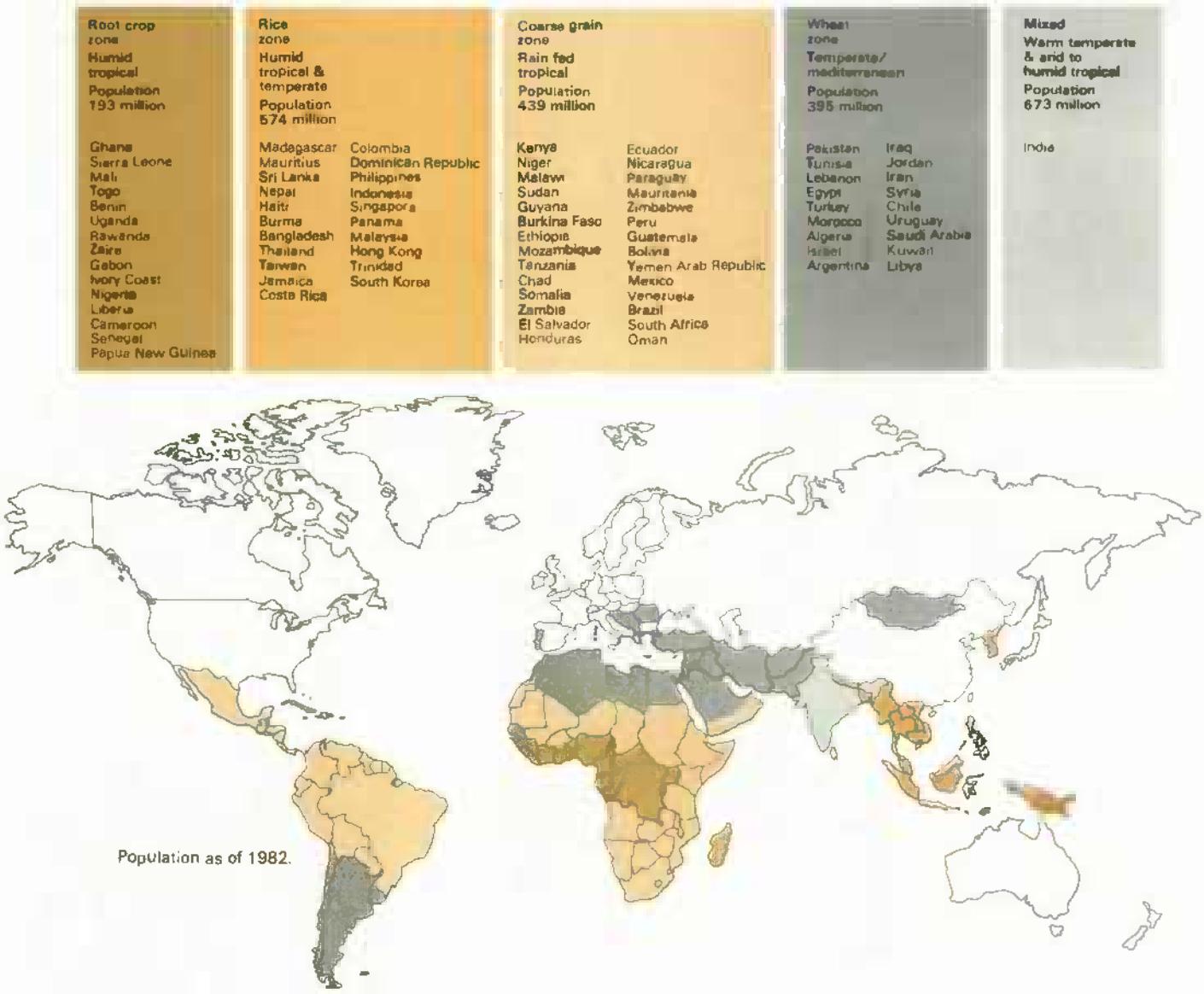
Improved varieties are key to raising yields in the developing countries. About 27 percent of the seed used in the third world is improved. In Latin America, 44 percent of seeds are of improved varieties, but the percentages drop to 32 and 23 in the Near East and the Far East, respectively. In Africa, only 9 percent are of improved varieties.

During the Green Revolntion, significant research progress was made with wheat and rice, and the semidwarf varieties produced spread rapidly through the irrigated areas of the developing world. They greatly increased production in areas where they were suitable.

Irrigation has also been important to achieving higher yields, especially in the Far East, which has almost two-thirds of the irrigated area of the developing world. The Near East has 20 percent, Latin America has 13 percent, while all of Africa has only 3 percent.

Irrigation by itself gives higher yields. Further, when farmers combine irrigation with increased fertilizer use, the yield response is even larger. In addition, with irrigation, the risk of losing the money spent on fertilizer because of crop failure is lower. Perhaps 60 percent of all fertilizer used in developing countries is applied to irrigated crops.

Third World Country Groups by Major Crop & Climatic Zone



Situation Different for Rain-Fed Agriculture

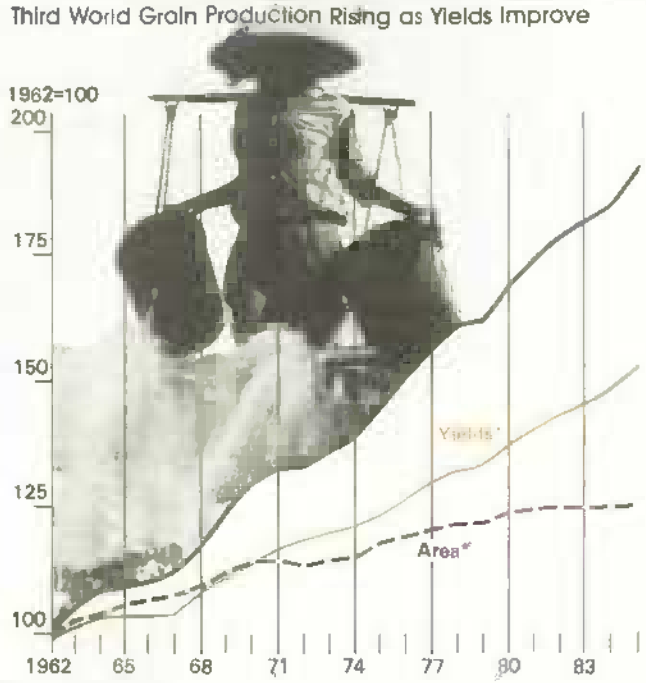
Rain-fed agriculture has not fared as well as irrigated. About 80 percent of the third world's cultivated land is rain-fed, supporting nearly two-thirds of its farmers. Much of this farming is under subsistence conditions with very low input use. Only 3 kilograms of fertilizer are applied per hectare in the low-rainfall areas, while the higher rainfall areas average 20 kilograms per hectare. In contrast, about 110 kilograms per hectare are used in areas with reliable irrigation. Half of the increase in grain yields since 1950 can be attributed to greater fertilizer use.

The principal coarse grain crops grown in rain-fed areas in the third world are corn, sorghum, millet, and barley. Research on these crops started later than that on the food grains, and not enough time and effort have been invested yet to produce similar high-yielding results. However, even as suitable high-yielding varieties of these coarse grains are developed, there will still be problems with low soil fertility and, in the semi-arid regions, lack of adequate water.

Imports To Continue Up

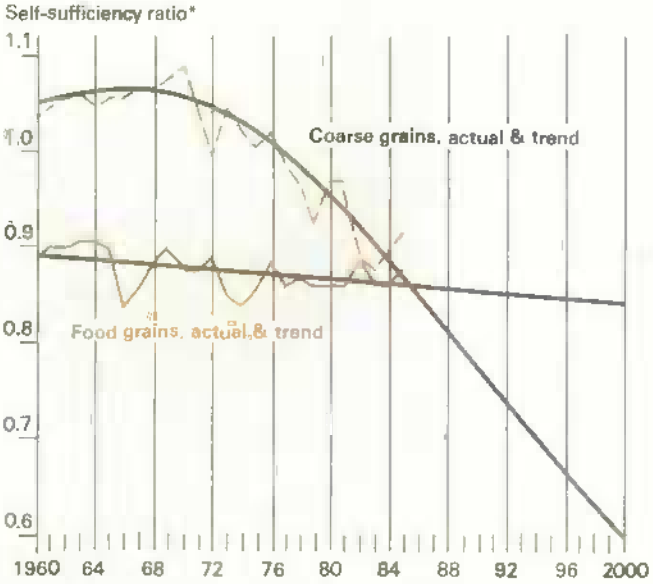
In the third world areas still not planted to semidwarf, high-yielding wheat and rice, there is little reason to expect the varieties to spread any more rapidly than in the past. In fact, because the varieties will be spreading to nonirrigated or newly irrigated lands, yield gains may be less

Third World Grain Production Rising as Yields Improve



*3-year averages.

Third World Becoming Less Self-Sufficient in Grain as Incomes Grow



*Domestic production divided by the sum of domestic production plus imports.

than in the irrigated areas where these varieties were first adopted in the late 1960's and the 1970's.

Construction of irrigation facilities is also unlikely to accelerate because many countries have only limited investment resources. Nevertheless, new irrigation facilities should continue to be developed slowly in the third world, because food imports are also costly and require recurring foreign exchange costs.

There have been no dramatic developments with corn yields comparable to the breakthroughs in wheat and rice. There are improved varieties of sorghums and millets, but their use has not spread beyond India, Mexico, and Argentina. Varieties suited to Africa are only now being developed. Development and spread of coarse grain varieties that could raise yields substantially above trend growth are not imminent.

Thus, there is no reason to expect actual yields in the third world to differ significantly from the long-term trend for yield increases there. Nor does there appear to be any reason to expect a major shift in the relatively slow upward trend of harvested area. As a result, grain production in the third world by 1995 may reach 590 million tons, from 450 in 1985/86. *[Gary Vocke (202) 786-1705]*

Upcoming Releases from the Agricultural Statistics Board

The following list gives the release dates of the major Agricultural Statistics Board reports that will be issued by the time July *Agricultural Outlook* comes off press.

June

1	Egg Products
2	Poultry Slaughter
3	Minn.-Wis. Mfg. Milk Final 1984-86
5	Celery
	Dairy Products
9	Crop Production
10	Vegetables
	Vegetables-Annual
12	Turkey Hatchery
15	Milk Production
	Cattle on Feed
19	Catfish
	Livestock Slaughter
22	Vegetables
	Cold Storage
23	Farm Prod. Expenditures, 1986 Prel.
24	Cherry Production (Tent.)
	Eggs, Chickens, & Turkeys
29	Peanut Stocks & Processing
30	Grain Stocks
	Hogs & Pigs
	Cattle
	Agricultural Prices-Monthly
	Agricultural Prices-Annual

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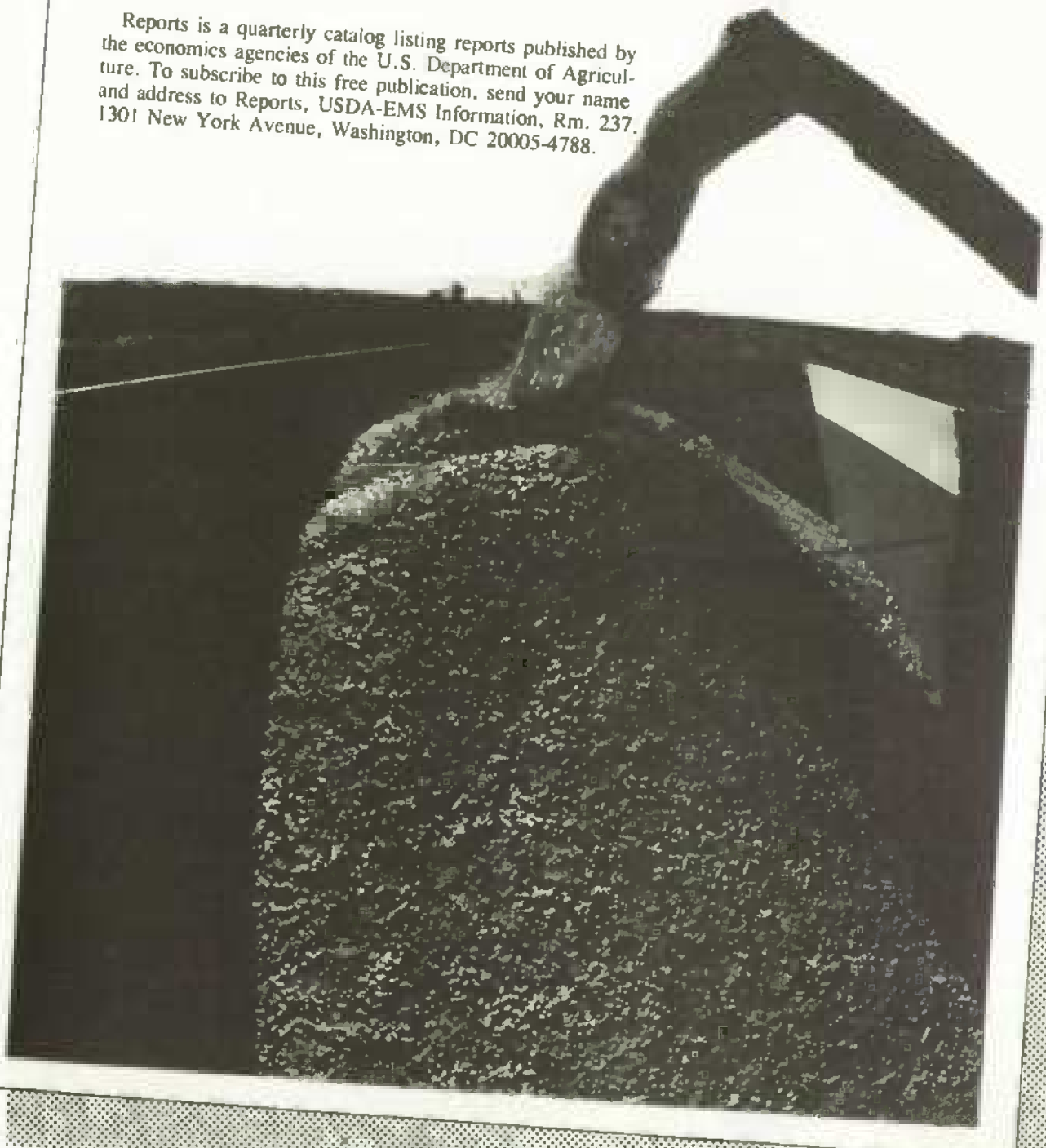

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1986				1987				
	II	III	IV	Annual	I F	II F	III F	IV F	Annual F
Prices received by farmers (1977=100)	122	124	122	123	122	119	120	--	120
Livestock & products	130	146	144	138	143	140	141	--	141
Crops	113	101	100	106	100	96	98	--	98
Prices paid by farmers, (1977=100)									
Prod. items	145	144	142	143	143	147	147	--	146
Commodities & services, int., taxes, & wages	161	159	158	159	159	161	162	--	161
Cash receipts ($ bil) 1/	130	130	146	134	124	121	125	--	126-128
Livestock ($ bil)	67	75	76	71	70	70	72	--	71-73
Crops ($ bil)	64	55	70	63	54	51	53	--	54-56
Market basket (1967=100)									
Retail cost	284	292	294	289	292	292	294	--	293
Farm value	222	244	243	234	232	231	237	--	235
Spread	320	319	324	321	327	327	327	--	327
Farm value/retail cost (%)	29	31	30	30	29	29	30	--	30
Retail prices (1967=100)									
Food	317	322	324	320	330	331	333	--	330-333
At home	302	308	310	305	316	316	317	--	316-320
Away-from home	359	362	366	360	370	374	378	--	374-380
Agricultural exports ($ bil) 2/	5.7	5.5	7.7	26.3	6.9	5.9	5.5	7.9	26.0
Agricultural imports ($ bil) 2/	5.4	5.0	5.1	20.9	5.3	5.0	4.6	4.8	20.0
Production:									
Red meat (mil lb)	10,021	9,720	9,752	39,051	9,485	9,277	9,531	9,675	37,968
Poultry (mil lb)	4,536	4,684	4,602	17,929	4,428	4,965	5,155	5,020	19,668
Eggs (mil doz)	1,421	1,413	1,457	5,715	1,442	1,440	1,430	1,480	5,792
Milk (bil lb)	38.4	35.6	33.9	144.1	34.7	37.3	35.4	34.0	141.6
Consumption, per capita:									
Red meat and poultry (lbs)	53.8	53.8	54.8	214.1	52.1	53.5	54.3	55.7	215.5
Corn beginning stocks (mil bu) 3/	6,587.1	4,990.0	4,039.5	4,039.5	10,304.1	8,246.8	--	--	5,115.3
Corn use (mil bu) 3/	1,599.4	956.5	1,989.0	6,496.0	2,057.6	--	--	--	--
Prices: 4/									
Choice steers--Omaha ($/cwt)	54.52	58.94	60.36	57.75	60.50	63-67	61-67	60-66	61-65
Barrows and gilts--7 mkts. ($/cwt)	47.23	61.13	53.08	51.19	48.11	49-53	47-53	40-46	46-50
Broilers--12-city (cts/lb)	54.3	66.6	56.2	56.9	50.0	47-51	45-51	43-49	46-50
Eggs--NY Gr. A large (cts/doz)	63.4	72.8	74.0	71.1	64.8	59-63	61-67	65-71	62-66
Milk--all at plant ($/cwt)	11.97	12.37	13.33	12.52	12.90	11.85-12.15	12.10-12.50	12.60-13.30	12.35-12.75
Wheat--Kansas city HRW ($/bu)	3.22	2.50	2.65	2.93	2.80	--	--	--	--
Corn--Chicago ($/bu)	2.51	1.72	1.62	2.35	1.56	--	--	--	--
Soybeans--Chicago ($/bu)	5.32	4.90	4.86	5.11	4.87	--	--	--	--
Cotton--Avg. spot mkt. (cts/lb)	63.9	42.0	48.0	60.0	54.8	--	--	--	--

	1979	1980	1981	1982	1983	1984	1985	1986 P	1987 F
Gross cash income ($ bil)	135.1	143.3	146.0	150.6	150.2	154.9	156.2	151	146-148
Gross cash expenses ($ bil)	101.7	109.1	113.2	113.8	113.0	115.6	112.1	102	96-98
Net cash income ($ bil)	33.4	34.2	32.8	36.8	37.1	39.3	44.0	49	48-52
Net farm income ($ bil)	27.4	16.1	26.9	22.7	13.0	32.7	30.5	33	33-37
Farm real estate values (1977=100)	125	145	158	157	148	146	128	112	103

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Dec.-Feb. first quarter; Mar.-May second quarter; June-Aug. third quarter; Sept.-Nov. fourth quarter; Sept.-Aug. annual. Use includes exports and domestic disappearance. 4/ Simple averages. F = forecast. P = preliminary.

Table 2.—U.S. Gross National Product & Related Data

	Annual			1986				1987
	1984	1985	1986	I	II	III	IV	I P
	$ billion (Quarterly data seasonally adjusted at annual rates)							
Gross national product	3,765.0	3,998.1	4,206.1	4,149.2	4,175.6	4,240.7	4,258.7	4,339.2
Personal consumption expenditures	2,428.2	2,600.5	2,762.5	2,697.9	2,732.0	2,799.8	2,820.4	2,854.3
Durable goods	331.2	359.3	388.1	360.8	373.9	414.5	403.1	385.4
Nondurable goods	870.1	905.1	932.7	929.7	928.4	932.8	940.1	962.8
Clothing & shoes	147.2	155.2	164.8	161.3	165.0	166.6	166.8	170.0
Food & beverages	449.9	469.3	492.8	484.6	490.3	494.0	502.1	511.3
Services	1,227.0	1,336.1	1,441.7	1,407.4	1,429.8	1,452.4	1,477.2	1,506.1
Gross private domestic investment	662.1	661.1	683.6	708.3	687.3	675.8	663.2	704.8
Fixed investment	598.0	650.0	677.0	664.4	672.8	680.3	690.3	672.0
Change in business inventories	64.1	11.1	6 7	43.8	14.5	-4.5	-27.1	32.7
Net exports of goods & services	-58.7	-78.9	-104.3	-93.7	-104.5	-108.9	-110.2	-112.0
Government purchases of goods & services	733.4	815.4	864.2	836.7	860.8	874.0	885.3	892.1
	1982 $ billion (Quarterly data seasonally adjusted at annual rates)							
Gross national product	3,489.9	3,585.2	3,674.8	3,655.9	3,661.4	3,686.4	3,686.1	3,735.2
Personal consumption expenditures	2,246.3	2,324 5	2,418.7	2,372.7	2,408.4	2,448.0	2,445.8	2,443.1
Durable goods	318.9	343.9	368.6	345.4	357.1	391.6	380.4	362.5
Nondurable goods	828.6	841.6	872.1	860.6	877.3	875.4	875.1	877.7
Clothing & shoes	142.7	146.0	155.6	152.4	157.1	157.7	155.3	157.6
Food & beverages	424.2	433.4	440.5	441.1	444.2	437.9	438.7	443.9
Services	1,098.7	1,139.0	1,178.0	1,166.6	1,174.0	1,181.0	1,190.2	1,202.9
Gross private domestic investment	652.0	647.7	657.2	684.0	664.7	651.3	629.0	669.4
Fixed investment	592.8	638.6	650.7	644.1	649.6	651.6	657.4	638.4
Change in business inventories	59.2	9.0	6.6	39.9	15.1	-0.3	-28.5	31.0
Net exports of goods & services	-83.6	-108.2	-147.8	-125.9	-153.9	-163.3	-148.0	-134.2
Government purchases of goods & services	675.2	721.2	746.8	725.2	742.2	750.4	769.3	756.9
GNP implicit price deflator % change	3.8	3.3	2.7	2.5	1.8	3.6	.7	3.5
Disposable personal income ($bil)	2,670.6	2,828.0	2,971.6	2,935.1	2,978.5	2,979.9	2,993.0	3,062.0
Disposable per. income (1982 $bil)	2,470.6	2,528.0	2,602.0	2,581.2	2,625.8	2,605.5	2,595.4	2,620.9
Per capita disposable per. income ($)	11,265	11,817	12,304	12,193	12,348	12,324	12,348	12,609
Per capita dis. per. income (1982 $)	10,421	10,563	10,773	10,723	10,886	10,776	10,708	10,792
U.S. population, total, incl. military abroad (mil)	237.1	239.3	241.6	240.8	241.3	241.9	242.5	243.0
Civilian population (mil)	234.9	237.0	239.4	238.5	239.1	239.6	240.2	240.8

	Annual			1986		1987		
	1984	1985	1986 P	Mar	Dec	Jan	Feb	Mar
	Monthly data seasonally adjusted							
Industrial production (1977=100)	121.4	123.8	125.1	123.6	126.7	126.5	127.1	126.7
Leading economic indicators (1967=100)	165.3	168.6	179.2	176.4	186.7	186.0	186.8	187.5
Civilian employment (mil. persons)	105.0	107.2	109.8	108.8	110.6	111.0	111.4	111.4
Civilian unemployment rate (%)	7.5	7.2	7.0	7.2	6.6	6.7	6.7	6.6
Personal income ($ bil annual rate)	3,110.2	3,314.5	3,485.7	3,445.1	3,542.7	3,553.4	3,598.5	3,603.9
Money stock-M2 (daily avg) ($bil) 1/	2,373.7	2,566.5	2,780.8	2,598.9	2,799.8	2,822 0	2,821.5	2,825.7
Three-month Treasury bill rate (%)	9.58	7.48	5.98	6.59	5.49	5.45	5.59	5.56
Aaa corporate bond yield (Moody's) (%)	12.71	11.37	9.02	9.00	8.49	8.36	8.38	8.36
Housing starts (thou) 2/	1,750	1,742	1,806	1,887	1,813	1,816	1,833	1,774
Auto sales at retail, total (mil)	10.4	11.0	11.5	9.8	13.6	8.2	9.9	10.1
Business inventory/sales ratio	1.48	1.50	1.54	1.58	1.47	1.55	1.49	--
Sales of all retail stores ($ bil)	107.5	115.0	121.2	117.4	127.6	118.6	124.4 p	124.7
Nondurable goods stores ($ bil)	68.5	71.8	73.8	73.7	75.0	74.8	76.7 p	76.8
Food stores ($ bil)	22.6	23.7	24.6	24.5	25.1	25.0	25.2 p	25.4
Eating & drinking places ($ bil)	10.4	11.1	12.1	11.7	12.5	12.9	13.2 p	13.1
Apparel & accessory stores ($ bil)	5.6	6.2	6.7	6.6	6.5	6.7	7.0 p	7.1

1/ Annual data as of December of the year listed. 2/ Private, including farm. P = preliminary.

Information contact: James Malley (202) 786-1283.

Table 3.—Foreign Economic Growth, Inflation, & Export Earnings

	Average 1970-74	Average 1975-79	1980	1981	1982	1983	1984	1985	1986 est.
	Annual percent change								
Total foreign									
Real GNP	5.5	3.7	2.6	1.6	1.7	2.0	3.2	2.9	2.8
CPI	10.2	14.0	16.7	15.8	14.4	8.7	21.3	21.1	11.6
Export earnings	27.5	14.6	22.6	-2.2	-6.8	-2.6	5.4	1.6	--
Developed less U.S.									
Real GNP	4.8	3.1	2.3	1.3	1.1	1.9	3.5	3.1	2.3
CPI	8.4	9.4	10.9	9.6	8.1	6.1	5.1	4.7	2.7
Export earnings	23.9	14.9	17.0	-3.3	-4.2	-0.5	6.1	4.9	19.1
Centrally planned									
Real GNP	5.1	3.5	1.9	2.1	2.7	3.4	3.7	2.9	3.9
Export earnings	19.4	16.1	16.5	3.4	6.0	8.2	1.5	-5.1	--
Latin America									
Real GNP	7.4	5.1	5.3	0.7	-0.5	-2.7	3.2	3.7	3.2
CPI	23.5	53.7	61.3	64.9	72.6	126.2	174.3	179.2	89.9
Export earnings	28.1	12.8	30.1	4.8	-9.7	-0.8	7.1	-5.5	-3.0
Africa & Middle East									
Real GNP	8.9	6.4	1.3	0.0	1.4	0.1	0.2	0.3	0.7
CPI	6.7	16.4	22.1	19.7	12.0	19.0	5.9	5.3	6.2
Export earnings	49.6	43.2	38.5	-7.0	-18.9	-17.2	-8.1	-8.4	--
Asia									
Real GNP	6.0	6.8	6.3	6.6	3.6	6.6	5.6	3.2	4.9
CPI	13.0	8.4	16.4	14.1	7.1	7.7	8.5	5.4	5.0
Export earnings	30.1	19.4	27.3	5.0	-0.6	3.5	13.3	-1.8	--

Information contact: Timothy Baxter (202) 786-1688.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1986			1987			
	1984	1985	1986 P	Apr	Nov	Dec	Jan	Feb	Mar R	Apr P
	1977=100									
Prices received										
All farm products	142	128	123	121	124	121	121	122	123	125
All crops	138	120	106	114	103	99	99	99	102	102
Food grains	144	133	109	134	97	99	100	102	102	102
Feed grains & hay	145	122	98	113	79	80	79	78	80	82
Feed grains	148	122	96	112	76	77	76	74	77	77
Cotton	108	93	91	98	89	90	84	79	83	84
Tobacco	153	154	138	142	131	131	130	131	131	130
Oil-bearing crops	109	84	77	79	76	76	72	72	72	73
Fruit, all	200	183	168	145	192	170	160	175	170	167
Fresh market 1/	218	196	176	150	203	177	166	182	177	175
Commercial vegetables	135	128	130	147	146	120	148	141	158	145
Fresh market	133	123	123	147	142	112	151	137	160	143
Potatoes & dry beans	157	125	114	103	119	125	126	126	132	136
Livestock & products	146	136	138	127	145	141	142	144	142	148
Meat animals	151	142	145	132	150	146	150	155	156	166
Dairy products	139	131	129	124	138	138	137	133	129	127
Poultry & eggs	135	119	128	115	136	124	118	115	111	112
Prices paid										
Commodities & services, interest, taxes, & wage rates	165	163	159	159	--	--	159	--	--	162
Production items	155	151	145	145	--	--	143	--	--	147
Feed	135	116	108	113	--	--	99	--	--	100
Feeder livestock	154	154	153	147	--	--	164	--	--	179
Seed	151	153	148	146	--	--	146	--	--	149
Fertilizer	143	135	124	125	--	--	116	--	--	117
Agricultural chemicals	128	128	127	126	--	--	126	--	--	123
Fuels & energy	201	201	162	157	--	--	158	--	--	164
Farm & motor supplies	147	146	144	144	--	--	146	--	--	145
Autos & trucks	182	193	198	197	--	--	196	--	--	210
Tractors & self-propelled machinery	181	178	174	175	--	--	172	--	--	174
Other machinery	180	183	184	184	--	--	181	--	--	186
Building & fencing	138	136	136	135	--	--	136	--	--	136
Farm services & cash rent	148	150	150	150	--	--	148	--	--	148
Interest payable per acre on farm real estate debt	257	238	213	214	--	--	207	--	--	207
Taxes payable per acre on farm real estate	132	133	134	134	--	--	136	--	--	136
Wage rates (seasonally adjusted)	151	154	160	164	--	--	159	--	--	159
Production items, interest, taxes, & wage rates	162	157	151	151	--	--	149	--	--	152
Ratio, prices received to prices paid 2/	86	79	77	76	78	77	76	77	77	77
Prices received (1910-14=100)	650	586	561	551	568	551	552	558	560	573
Prices paid, etc. (Parity index) (1910-14=100)	1,132	1,120	1,097	1,096	--	--	1,091	--	--	1,112
Parity ratio (1910-14=100) 2/	58	52	51	50	--	--	51	--	--	52

1/ Fresh market for noncitrus; fresh market and processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio derived using the most recent prices paid index. Prices paid data will be published in January, April, July, and October. P = preliminary. R = revised.

Information contact: National Agricultural Statistics Service (202) 447-5446.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual*			1986			1987			
	1984	1985	1986 P	Apr	Nov	Dec	Jan	Feb	Mar R	Apr P
Crops										
All wheat ($/bu)	3.46	3.20	2.71	3.37	2.43	2.49	2.53	2.58	2.58	2.59
Rice, rough ($/cwt)	8.32	7.85	5.04	5.32	3.93	3.76	3.61	3.80	3.68	3.52
Corn ($/bu)	3.05	2.49	1.96	2.30	1.47	1.50	1.47	1.42	1.47	1.49
Sorghum ($/cwt)	4.60	3.97	3.11	3.80	2.38	2.41	2.37	2.36	2.45	2.51
All hay, baled ($/ton)	75.40	69.90	61.90	66.20	56.50	57.20	55.40	58.10	57.90	62.90
Soybeans ($/bu)	7.02	5.42	5.00	5.23	4.64	4.67	4.69	4.69	4.73	4.82
Cotton, Upland (cts/lb)	65.6	56.1	54.7	59.2	52.9	54.7	51.0	47.7	50.0	50.8
Potatoes ($/cwt)	5.69	3.92	4.84	3.99	4.64	4.73	4.82	4.91	5.28	5.52
Lettuce ($/cwt) 1/	11.00	10.90	11.20	15.40	12.00	11.00	14.80	9.05	15.30	9.69
Tomatoes ($/cwt)	25.60	24.10	25.40	30.10	36.30	19.00	28.30	25.80	32.10	28.00
Onions ($/cwt)	11.70	9.75	9.80	8.68	12.70	12.00	16.90	16.70	19.40	25.40
Dry edible beans ($/cwt)	18.70	17.60	18.80	17.10	20.00	22.70	22.00	20.30	19.10	18.50
Apples for fresh use (cts/lb)	15.5	17.3	NA	17.2	18.5	17.9	17.9	19.5	19.6	19.4
Pears for fresh use ($/ton)	300.00	349.00	396.00	423.00	396.00	390.00	376.00	407.00	403.00	355.00
Oranges, all uses ($/box) 2/	5.95	7.41	4.18	3.79	6.58	4.59	4.24	4.75	4.79	4.94
Grapefruit, all uses ($/box) 2/	2.68	4.01	4.21	4.22	4.19	4.54	4.50	4.55	4.76	5.21
Livestock										
Beef cattle ($/cwt)	57.60	54.00	52.80	50.30	54.60	53.20	56.40	58.80	59.30	63.20
Calves ($/cwt)	60.20	62.40	60.90	58.90	62.20	62.20	66.40	70.60	72.50	75.10
Hogs ($/cwt)	47.60	43.90	50.10	39.70	52.80	50.60	47.20	48.20	47.40	50.70
Lambs ($/cwt)	60.30	68.10	69.10	69.10	69.30	73.20	76.60	76.00	80.80	85.40
All milk, sold to plants ($/cwt)	13.50	12.70	12.50	12.10	13.40	13.40	13.30	12.90	12.50	12.30
Milk, manuf. grade ($/cwt)	12.49	11.72	11.50	11.20	12.30	12.30	12.00	11.60	11.30	11.20
Broilers (cts/lb)	33.2	30.2	34.7	29.5	34.9	30.6	31.1	30.1	29.1	29.6
Eggs (cts/doz) 3/	70.3	57.4	60.3	56.9	66.3	65.2	59.3	58.3	54.4	55.6
Turkeys (cts/lb)	46.6	47.2	44.2	38.1	51.5	41.5	34.9	35.3	37.6	36.5
Wool (cts/lb) 4/	79.5	63.3	66.0	70.0	62.3	62.0	57.0	59.6	71.0	96.8

1/ Due to program modifications, 1983 data not comparable with 1984 and 1985. 2/ Equivalent on-tree returns. 3/ Average of all eggs sold by producers including hatching eggs and eggs sold at retail. 4/ Average local market price, excluding incentive payments. *Calendar year averages, except for potatoes, dry edible beans, apples, oranges, and grapefruit, which are crop years. P = preliminary R = revised. NA = not available.

Information contact: National Agricultural Statistics Service (202) 447-5446.

Producer and Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1986						1987 1/		
	1986	Mar	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
					1967=100					
Consumer price index, all items	328.4	326.0	328.6	330.2	330.5	330.8	331.1	333.1	334.4	335.9
Consumer price index, less food	328.6	326.6	328.1	330.0	330.2	330.4	330.6	332.2	333.6	335.4
All food	319.7	315.4	322.7	323.2	323.7	324.6	325.2	328.9	330.1	330.0
Food away from home	360.1	355.5	361.8	363.3	364.0	365.6	367.1	368.6	369.6	370.9
Food at home	305.3	301.2	308.9	309.0	309.5	309.9	310.2	315.2	316.6	315.8
Meats 2/	273.9	266.6	279.8	283.6	283.9	285.4	286.3	288.6	285.3	286.4
Beef & veal	271.4	271.3	270.9	272.4	273.8	277.6	279.5	282.9	280.7	282.7
Pork	273.8	253.4	292.6	300.1	298.0	295.6	294.2	294.0	289.8	287.2
Poultry	232.7	218.2	255.0	249.5	247.8	245.2	241.9	238.4	237.0	234.1
Fish	443.2	435.6	446.3	447.2	451.6	449.7	457.6	478.0	479.9	487.4
Eggs	186.3	190.8	192.8	186.0	186.2	195.8	198.6	193.2	187.4	180.0
Dairy products 3/	258.4	256.8	258.3	258.5	260.0	261.2	262.2	263.3	264.7	263.7
Fats & oils 4/	287.8	290.2	287.8	285.6	284.6	285.4	286.0	293.2	290.3	294.6
Fresh fruit	369.3	352.0	391.5	384.1	375.1	360.6	355.8	389.1	406.7	403.9
Processed fruit 5/	163.3	164.9	162.3	161.9	162.0	162.0	163.1	165.7	166.3	167.5
Fresh vegetables	330.3	309.0	321.9	321.0	328.8	338.9	342.5	356.3	377.7	364.7
Potatoes	307.3	261.9	357.9	335.4	323.4	325.7	332.0	340.1	357.0	355.3
Processed vegetables 5/	147.4	147.2	146.5	146.9	146.2	146.5	147.4	150.2	148.5	152.1
Cereals & bakery products 5/	325.8	322.7	328.2	328.5	328.4	328.5	329.5	331.9	332.7	333.2
Sugar & sweets	411.1	408.4	413.1	413.7	413.4	412.4	411.8	415.8	415.8	417.2
Beverages, nonalcoholic	478.2	488.0	476.9	475.7	477.5	476.9	470.2	482.6	481.9	475.4
Apparel commodities less footwear	188.8	187.5	188.1	194.0	194.6	194.4	191.7	187.7	189.0	196.1
Footwear	211.2	210.1	209.8	212.0	215.1	215.1	214.0	209.9	211.0	216.5
Tobacco & smoking products	351.0	345.6	356.2	356.8	357.2	357.3	357.6	364.9	368.3	368.6
Beverages, alcoholic	239.7	238.8	240.1	240.4	240.6	240.5	240.8	242.5	243.2	243.6

1/ Beginning January 1987 the CPIs are calculated using 1982-84 expenditure patterns and updated population weights. The old series were based on 1972-73 expenditure patterns. 2/ Beef, veal, lamb, pork, and processed meat. 3/ Includes butter. 4/ Excludes butter. 5/ December 1977=100.

Information contact: Ralph Parlett (202) 786-1870.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1986				1987		
	1984	1985	1986 P	Mar	Oct	Nov R	Dec	Jan	Feb	Mar
	1967=100									
Finished goods 1/	291.1	293.7	289.6	288.0	290.7	290.7	288.9	291.7	292.3	292.3
Consumer foods	273.3	271.2	278.0	271.6	283.6	283.1	282.9	280.0	279.6	280.4
Fresh fruit	253.0	256.1	262.1	242.5	308.5	272.1	271.1	255.1	260 0	266.9
Fresh & dried vegetables	278.3	245.1	241.1	215.2	249.6	262.5	251.9	226.9	219.2	260.0
Dried fruit	386.6	363.5	377.4	372.9	383.2	386.1	384.8	383.6	384.8	384.8
Canned fruit & juice	312.4	323.1	315.1	315.5	310.9	314.6	320.5	322.1	321.6	324.7
Frozen fruit & juice	351.0	362.3	314.8	312.2	315.6	320.1	325.1	333.4	333.3	335.5
Fresh veg. excl. potatoes	219.1	205.9	204.0	190.0	204.3	214.1	206.1	174.9	167.1	213.2
Canned veg. and juices	252.6	246.9	245.1	245.0	243.5	246.2	246.8	246.4	247.8	256.8
Frozen vegetables	291.0	298.4	298.5	299.2	297.8	298.3	298.4	300.3	300.4	300.6
Potatoes	397.7	304.3	312.6	244.0	353.3	374.1	350.5	367.2	359.5	362.1
Eggs	210.8	171.0	177.9	182.1	173.5	197.4	194.0	176.9	175.6	160.3
Bakery products	299.1	313.7	321.3	319.5	322.6	322.4	321.1	322.2	320.7	322.0
Meats	236.8	227.9	235.2	219.2	246.7	244.3	243.6	238.2	237.0	234.4
Beef & veal	237.1	221.3	216.0	210.6	221.2	223.6	219.8	217.1	222.7	224.0
Pork	226.5	223.8	250.9	213.3	272.1	259.1	263.4	250.4	238.3	228.2
Processed poultry	206.0	197.3	207.8	188.2	233.7	216.1	200.5	194.6	189.5	187.4
Fish	476.0	484.2	530.4	530.5	526.2	536.1	569.4	604.7	632.9	610.8
Dairy products	251.7	249.4	248.8	246.0	252.0	253.4	254.4	253.9	252.8	252.6
Processed fruits & vegetables	294.3	296.3	287.9	287.3	287.0	289.7	292.0	293.9	294 4	298.5
Shortening & cooking oils	311.6	290.6	242.4	250.0	238.8	233.8	236.3	239.8	240.6	238.7
Consumer finished goods less foods	294.1	297.3	283.4	284.6	281.0	281.2	278.9	284.5	286.0	285.7
Beverages, alcoholic	209.8	213.0	217.8	217.5	219.0	218.0	218.3	217.5	218.4	218.6
Soft drinks	340.2	343 6	349.7	349.2	351.2	350.8	351.6	351.8	354.4	356.3
Apparel	201.3	204.1	206.5	206.4	207.1	207.4	206.7	207.5	207.4	208.6
Footwear	251.7	256.7	261.8	261.6	263.4	263.4	263.8	264.6	263.8	265.5
Tobacco products	398.4	428.1	460.4	451.6	469.3	469.3	469.3	487.1	487.8	487.5
Intermediate materials 2/	320.0	318.7	307.6	309.5	304.8	304.8	305.0	307.1	308.8	309.4
Materials for food manufacturing	271.1	258.8	250.9	246.7	253.9	253.2	253.0	251.0	250.6	250.0
Flour	185.2	183.0	173.4	182.5	165.1	164.8	164.5	164.6	168.8	169.1
Refined sugar 3/	173.5	165.6	166.4	165.7	168.4	168.5	169.1	169.2	169.1	169.2
Crude vegetable oils	262.2	219.6	135.8	138.7	119.0	124.1	122.8	127.1	128.9	131.3
Crude materials 4/	330.8	306.1	280.0	281.1	277.2	279.2	274.8	284.0	288.8	287.7
Foodstuffs & feedstuffs	259.5	235.0	230.6	224.4	235.0	236.8	232.8	227.1	229.2	228.1
Fruits & vegetables 5/	278.1	260.5	261.2	237.1	287.6	278.2	271.6	249.7	247.6	274.3
Grains	239.7	202.8	167.2	191.5	134.8	146.3	149.7	140.9	140.6	142.3
Livestock	251.8	229.8	236.1	220.3	247.3	249.1	244.5	238.3	245.3	245.9
Poultry, live	240.6	226.2	248.8	209.0	314.0	250.9	218.7	212.3	199.8	199.5
Fibers, plant & animal	228.4	197.8	179.3	206.8	150.8	154.0	176.7	192.3	188.9	182.4
Fluid milk	278.3	264.6	256.9	251.1	266.6	270.4	271.4	271.5	267.4	260.5
Oilseeds	253.3	202.7	196.2	199.4	183.6	208.8	196.3	202.1	201.5	199.8
Tobacco, leaf	274.6	274.1	243.0	252.0	225.1	230.8	230.8	229.1	230.8	230.8
Sugar, raw cane	312.0	291.3	292.2	291.6	296.9	289.0	294.4	299.7	304.8	305.9
All commodities	310.3	308.7	299.8	300.3	298.4	298.7	298.1	300.9	302.7	302.8
Industrial commodities	322.6	323.8	312.1	314.0	309.6	309.8	309.3	313.6	315.7	315.8
All foods 6/	269.2	264.6	268.4	262.1	274.0	273.2	273.1	270.0	269.7	270.3
Farm products & processed foods & feeds	262.4	250.5	252.0	247.3	254.8	255.5	254.6	251.5	251.9	251.9
Farm products	255.8	230.5	224.7	220.2	227.4	230.1	226.8	220.2	221.2	222.7
Processed foods & feeds 6/	265.0	260.4	265.1	260.7	268.4	267.8	268.4	267.0	267.1	266.4
Cereal & bakery products	270.5	279.9	281.8	283.2	280.7	280.4	280.6	279.1	280.1	281.5
Sugar & confectionery	301.2	291.0	295.7	294.5	299.1	299.5	299.7	298.0	297.1	298.7
Beverages	273.1	276.6	294 3	285.5	293.3	292.6	292.8	288.4	289.5	289.5

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types and sizes of refined sugar. (Dec. 1977=100). 4/ Products entering market for the first time which have not been manufactured at that point. 5/ Fresh and dried. 6/ Includes all raw, intermediate, and processed foods (excludes soft drinks, alcoholic beverages, and manufactured animal feeds). (1977=100). R = revised. P = preliminary.

Information contact: Bureau of Labor Statistics (202) 523-1913.

Table 8.—Farm-Retail Price Spreads

	Annual				1986				1987		
	1983	1984	1985	1986	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Market basket 1/											
Retail cost (1967=100)	268.7	279.3	282.6	288.7	283.3	293.3	293.9	294.8	298.3	299.1	298.9
Farm value (1967=100)	242.3	255.4	237.2	234.1	222.1	244.7	244.8	241.3	232.0	234.2	233.2
Farm-retail spread (1967=100)	284.3	293.3	309.3	320.8	319.3	321.9	322.8	326.5	337.3	337.2	337.5
Farm value/retail cost (%)	33.4	33.8	31.1	30.0	29.0	30.9	30.8	30.3	28.8	29.0	28.9
Meat products											
Retail cost (1967=100)	267.2	268.1	265.5	273.9	266.6	283.9	285.4	286.3	288.3	285.3	286.1
Farm value (1967=100)	235.8	241.5	221.8	229.1	210.1	240.9	240.6	240.0	223.8	231.2	232.4
Farm-retail spread (1967=100)	304.0	299.1	316.6	326.2	332.7	334.2	337.8	340.5	363.9	348.6	349.0
Farm value/retail cost (%)	47.6	48.6	45.1	45.1	42.5	45.8	45.5	45.2	41.9	43.7	43.8
Dairy products											
Retail cost (1967=100)	250.0	253.2	258.0	258.4	256.8	260.0	261.2	262.2	263.2	264.3	263.2
Farm value (1967=100)	262.1	258.8	248.2	241.5	235.8	250.4	251.8	254.4	252.0	252.3	248.6
Farm-retail spread (1967=100)	239.3	248.3	266.5	273.3	275.2	268.5	269.3	269.0	273.0	274.8	276.0
Farm value/retail cost (%)	49.0	47.8	45.0	43.7	42.9	45.0	45.1	45.4	44.8	44.6	44.2
Poultry											
Retail cost (1967=100)	197.5	218.5	216.4	232.7	218.2	247.8	248.2	241.9	238.3	237.0	234.1
Farm value (1967=100)	213.0	249.9	234.9	255.4	219.8	300.4	266.6	228.4	221.7	216.7	214.6
Farm-retail spread (1967=100)	182.4	188.1	198.4	210.9	216.6	196.9	224.5	255.0	264.4	256.6	253.0
Farm value/retail cost (%)	53.1	56.3	53.4	54.0	49.6	59.6	53.5	46.4	45.8	45.0	45.1
Eggs											
Retail cost (1967=100)	187.1	209.0	174.3	186.3	190.8	186.2	195.8	198.6	193.5	187.2	180.3
Farm value (1967=100)	206.1	230.3	178.9	192.7	221.3	179.9	214.3	208.8	184.4	179.2	164.8
Farm-retail spread (1967=100)	159.5	178.2	167.6	177.1	146.7	195.3	169.0	183.9	206.5	198.8	202.6
Farm value/retail cost (%)	65.1	65.1	60.7	61.1	68.5	57.1	64.7	62.1	56.3	56.6	54.0
Cereal & bakery products											
Retail cost (1967=100)	292.5	305.3	317.0	325.8	322.7	328.4	328.5	329.5	331.2	332.3	332.9
Farm value (1967=100)	186.6	182.0	175.9	142.3	163.0	124.8	125.7	127.0	128.4	130.4	130.0
Farm-retail spread (1967=100)	314.0	328.7	346.2	363.7	355.8	370.5	370.5	371.4	373.2	374.1	374.9
Farm value/retail cost (%)	11.1	10.8	9.5	7.8	8.7	6.8	6.6	6.6	6.7	6.7	6.7
Fresh fruits											
Retail cost (1967=100)	303.6	345.3	383.5	390.1	367.1	398.2	381.6	379.8	412.2	427.1	429.2
Farm value (1967=100)	220.6	315.1	302.7	285.3	260.2	303.1	305.6	309.5	283.0	304.8	283.9
Farm-retail spread (1967=100)	340.8	358.9	419.8	437.1	415.1	440.9	415.7	411.3	470.2	482.0	494.5
Farm value/retail cost (%)	22.5	28.3	24.4	22.7	22.0	23.6	24.8	25.2	21.3	22.1	20.5
Fresh vegetables											
Retail costs (1967=100)	299.3	331.8	317.5	330.3	309.0	328.8	338.9	342.5	355.4	374.4	363.6
Farm value (1967=100)	267.4	298.7	256.7	247.8	206.9	273.3	298.4	240.8	310.9	266.9	298.8
Farm-retail spread (1967=100)	314.3	347.4	346.1	369.2	357.0	354.9	357.5	390.3	376.3	425.0	394.1
Farm value/retail cost (%)	28.6	28.8	25.9	24.0	21.4	26.6	28.2	27.0	28.0	22.8	26.3
Processed fruits & vegetables											
Retail cost (1967=100)	288.8	306.1	314.1	309.1	310.5	306.6	306.9	308.8	314.4	313.0	317.9
Farm value (1967=100)	300.5	343.5	378.5	326.3	321.6	332.5	332.1	344.3	358.7	363.4	365.8
Farm-retail spread (1967=100)	286.2	297.8	298.9	305.3	308.0	300.9	301.3	300.9	304.6	301.8	307.3
Farm value/retail costs (%)	18.9	20.3	21.8	19.1	18.8	19.7	19.6	20.2	20.7	21.0	20.8
Fats & oils											
Retail cost (1967=100)	263.1	288.0	294.4	287.8	290.2	284.6	285.4	286.0	293.4	289.9	293.9
Farm value (1967=100)	251.0	324.8	271.3	199.1	207.9	186.2	181.5	184.1	198.9	189.0	191.6
Farm-retail spread (1967=100)	267.8	273.8	303.3	321.9	321.8	322.5	329.3	325.2	328.8	328.7	333.3
Farm value/retail cost (%)	26.5	31.3	25.6	19.4	19.9	18.2	17.7	17.9	18.8	18.1	18.1

	Annual				1986				1987		
	1983	1984	1985	1986	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Beef, Choice											
Retail price 2/ (cts/lb)	238.1	239.6	232.6	230.7	230.3	231.2	233.8	234.8	236.6	233.6	233.6
Net carcass value 3/ (cts)	145.4	147.6	135.2	133.1	128.1	137.1	141.7	136.3	134.0	137.5	139.5
Net farm value 4/ (cts)	136.2	140.0	126.8	124.4	118.8	128.8	134.1	128.3	125.7	131.7	133.4
Farm-retail spread (cts)	101.9	99.6	105.8	106.3	110.5	102.3	99.7	106.5	110.9	101.9	100.2
Carcass-retail spread 5/ (cts)	92.7	92.0	97.4	97.6	102.2	94.1	92.1	98.5	102.6	96.1	94.1
Farm-carcass spread 6/ (cts)	9.2	7.6	8.4	8.7	8.3	8.2	7.6	8.0	8.3	5.8	6.1
Farm value/retail price (%)	57	58	55	54	52	56	57	55	53	56	57
Pork											
Retail price 2/ (cts/lb)	169.8	162.0	162.0	178.4	165.8	194.9	192.5	191.3	188.1	185.6	181.3
Wholesale value 3/ (cts)	108.9	110.1	101.1	110.9	92.4	118.5	118.4	113.5	105.4	103.8	102.2
Net farm value 4/ (cts)	76.5	77.4	71.4	82.4	65.8	86.7	86.1	81.4	75.7	77.8	76.8
Farm-retail spread (cts)	93.3	84.6	90.6	96.0	100.3	108.2	106.4	109.9	112.4	107.8	104.5
Wholesale-retail spread 5/ (cts)	60.9	51.9	60.9	67.5	73.4	76.4	74.1	77.8	82.7	81.8	79.1
Farm-wholesale spread 6/ (cts)	32.4	32.7	29.7	28.5	26.9	31.8	32.3	32.1	29.7	26.0	25.4
Farm value/retail price (%)	45	48	44	46	40	44	45	43	40	42	42

1/ Retail costs are based on indexes of retail prices for domestically produced farm foods from the CPI-U published monthly by the Bureau of Labor Statistics. The farm value is the payment to farmers for quantity of farm product equivalent to retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale and may include marketing charges such as grading and packing for some commodities. The farm-retail spread, the difference between the retail price and the farm value, represents charges for assembling, processing, transporting, and distributing these foods. 2/ Estimated weighted average price of retail cuts from pork and choice yield grade 3 beef carcasses. Retail cut prices from BLS. 3/ Value of carcass quantity (beef) and wholesale cuts (pork) equivalent to 1 lb of retail cuts; beef adjusted for value of fat and bone byproducts. 4/ Market value to producer for quantity of live animal equivalent to 1 lb. of retail cuts minus value of byproducts. 5/ Represents charges for retailing and other marketing services such as fabricating, wholesaling, and in-city transportation. 6/ Represents charges made for livestock marketing, processing, and transportation to city where consumed

Note: annual historical data on farm-retail price spreads may be found in Food Consumption, Prices and Expenditures, Statistical Bulletin 736, ERS, USDA.

Information contacts: Denis Dunham (202) 786-1870; Ron Gustafson (202) 786-1830.

Table 9.—Price Indexes of Food Marketing Costs[1]

	Annual			1985	1986				1987
	1984	1985	1986 P	IV	I	II	III	IV P	I P
					1967=100				
Labor-hourly earnings and benefits	365.5	363.0	359.8	361.4	362.7	361.3	356.0	359.1	365.3
Processing	350.2	357.9	365.8	359.6	364.3	369.6	362.3	366.8	375.2
Wholesaling	371.1	382.7	374.5	385.3	380.0	370.7	371.5	376.6	388 4
Retailing	378.3	364.1	348.7	358.2	356.4	349.0	342.7	343 7	345.2
Packaging & containers	307.6	312.1	317.4	312.7	314.2	316.3	318.3	320.8	325.3
Paperboard boxes & containers	281.1	271.6	269.1	266.6	266.0	266.4	270 1	274.0	281.6
Metal cans	397.3	416.9	430 1	419.8	429.9	430.2	430.2	430.2	431.3
Paper bags & related products	280.9	294.7	307.9	296.0	298.8	307.2	308.8	316.8	323.1
Plastic films & bottles	272.1	274.4	274.8	274.5	274.5	274.8	275.1	274.8	277.7
Glass containers	360.8	380.0	398.0	387.0	391.1	398.1	401.8	401.1	403.3
Metal foil	226.9	213.8	209.3	209.0	208.9	208.9	209.1	210.3	210.2
Transportation services	390.9	393.9	391.7	393.9	393.9	393.9	392.2	386.7	384.1
Advertising	300.5	320.2	339.7	324.4	333.3	338.4	341.6	345.6	354.6
Fuel & power	712.5	700.0	590.2	711.4	642.5	586.0	569.8	562.5	582.8
Electric	440.0	453.5	457.9	453.5	458.2	457.5	466.8	448.8	443.2
Petroleum	880.4	821.5	499.8	878.0	660.3	477.9	414.8	446.2	520.5
Natural gas	1,162.8	1,158.2	1,096.9	1,124.2	1,107.4	1,111.8	1,106.1	1,062.1	1,061.2
Communications, water & sewage	215.5	224.9	236 1	229.3	231.4	235.9	238.8	238.3	236.9
Rent	261.6	268.3	275.6	270.7	273.6	275.3	276.1	278.1	278.1
Maintenance & repair	350.3	360.3	368.5	364.1	367.2	364 2	369.1	373.5	377.5
Business services	306.1	321.9	334.1	327.3	330.4	333.3	335.5	338.5	339.5
Supplies	288.5	287.9	282.7	287.3	287.4	282.3	280.7	280.7	283.7
Property taxes & insurance	343.7	362.0	382.3	370.7	375.3	380.7	384.2	389.0	392.6
Interest, short-term	198.8	157.2	125.1	150.7	145.1	128.0	115.3	112.1	116.4
Total marketing cost index	357.0	358.6	355.1	359.7	358.0	355.3	352.8	354.3	359.4

* Indexes measure changes in employee earnings and benefits and in prices of supplies and services used in processing, wholesaling, and retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

Note: Annual historical data on food marketing cost indexes may be found in Food Consumption, Prices, and Expenditures, Statistical Bulletin 713, ERS, USDA.

Information contact: Denis Dunham (202) 786-1870.

Table 10.—U.S. Meat Supply & Use

Item	Beg. stks	Production 1/	Imports	Total supply	Exports	Shipments	Military consumption	Ending stocks	Civilian consumption: Total	Civilian consumption: Per capita 2/	Primary market price 3/
	Million pounds 4/									Pounds	
Beef:											
1984	325	23,598	1,823	25,746	329	47	112	358	24,900	78.5	65.34
1985	358	23,728	2,071	26,157	328	51	115	317	25,346	79.1	58.37
1986	317	24,371	2,101	26,789	521	52	110	311	25,795	79.8	57.75
1987 F	311	22,963	2,150	25,424	525	60	110	325	24,404	74.7	61-65
Pork:											
1984	301	14,812	954	16,067	164	147	86	274	15,396	61.8	48.86
1985	274	14,807	1,128	16,209	128	131	70	229	15,651	62.1	44.77
1986	229	14,063	1,107	15,398	86	132	73	197	14,911	58.6	51.19
1987 F	197	14,480	1,100	15,777	100	140	80	225	15,232	59.2	46-50
Veal:											
1984	9	495	24	528	6	1	4	14	503	1.8	60.24
1985	14	515	20	549	4	1	7	11	526	1.8	62.42
1986	11	524	27	562	5	1	6	7	543	1.9	60.89
1987 F	7	454	25	486	4	1	7	7	467	1.6	67-71
Lamb and mutton:											
1984	11	379	20	410	2	3	0	7	398	1.5	62 18
1985	7	358	36	401	1	2	0	13	385	1.4	68.61
1986	13	338	39	390	1	1	0	12	375	1.4	69.46
1987 F	12	316	40	368	2	1	0	8	357	1.3	74-78
Total red meat:											
1984	646	39,284	2,821	42,751	501	198	202	653	41,197	143.6	NA
1985	653	39,408	3,255	43,316	461	185	192	570	41,908	144.5	NA
1986	570	39,296	3,274	43,140	514	187	189	527	41,639	141.6	NA
1987 F	527	38,213	3,315	42,055	631	202	197	565	40,460	136.9	NA
Broilers:											
1984	21	13,016	0	13,038	407	145	34	20	12,432	52.9	55.6
1985	20	13,762	0	13,781	417	143	34	27	13,161	55.5	50.8
1986	27	14,316	0	14,343	566	149	35	24	13,569	56.7	56.9
1987 F	24	15,553	0	15,577	750	140	36	25	14,626	60.5	46-50
Mature chicken:											
1984	92	672	0	764	26	2	2	119	615	2.6	NA
1985	119	636	0	755	21	1	2	144	587	2.5	NA
1986	144	629	0	773	16	3	2	163	589	2.5	NA
1987 F	163	601	0	764	20	4	1	130	609	2.5	NA
Turkeys:											
1984	162	2,685	0	2,847	27	7	13	125	2,676	11.4	74.4
1985	125	2,942	0	3,067	27	7	13	150	2,870	12.1	75.5
1986	150	3,272	0	3,423	27	4	10	178	3,203	13.4	72.2
1987 F	178	3,826	0	3,005	25	4	16	180	3,780	15.6	60-64
Total poultry:											
1984	275	16,373	0	16,648	460	153	49	264	15,722	66.9	NA
1985	264	17,339	0	17,604	465	151	49	321	16,618	70.1	NA
1986	321	18,218	0	18,539	609	156	47	365	17,361	72.5	NA
1987 F	365	19,981	0	20,346	795	148	53	335	19,029	78.7	NA
Red meat & poultry:											
1984	921	55,657	2,821	59,399	961	351	251	917	56,919	210.5	NA
1985	917	56,747	3,255	60,920	926	336	241	891	58,526	214.6	NA
1986	891	57,514	3,274	61,679	1,223	343	236	892	58,985	214.1	NA
1987 F	892	58,194	3,315	62,400	1,426	350	250	900	59,475	215.5	NA

1/ Total including farm production for red meats and federally inspected plus non-federally inspected for poultry. 2/ Retail weight basis. 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: choice steers, Omaha 900-1,100 lbs.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb and mutton: choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats and certified ready-to-cook for poultry.
NA = not available. F = forecast.

Information contact: Ron Gustafson, Leland Southard, or Allen Baker (202) 786-1830.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Production	Imports	Total supply	Exports	Shipments	Military use	Hatching use	Ending stocks	Civilian consumption: Total	Civilian consumption: Per capita	Wholesale price*
	Million dozen										No	cts/doz
1982	17.5	5,801.9	2.5	5,821.8	158.2	26.7	22.4	505.6	20.3	5,088.6	265.1	70.1
1983	20.3	5,659.2	23.4	5,703.0	85.8	26.6	25.1	500.0	9.3	5,056.2	260.8	75.2
1984	9.3	5,708.2	32.0	5,749.5	58.2	27.8	17.6	529.7	11.1	5,105.1	260.9	80.9
1985	11.1	5,688.4	12.7	5,712.2	70.6	30.3	20.2	548.1	10.7	5,032.2	254.7	66.4
1986	10.7	5,715.0	13.6	5,739.4	101.0	28.0	17.5	565.5	10.4	5,017.0	251.5	71.1
1987 F	10.5	5,765.0	12.0	5,787.5	100.0	24.0	20.0	600.0	10.0	5,033.5	248.9	62-69

* Cartoned Grade A large eggs in New York. F = forecast. Information contact: Allen Baker (202) 786-1830.

Table 12.—U.S. Milk Supply & Use[1]

Calendar year	Production	Farm use	Commercial: Farm marketings	Commercial: Beg. stocks	Imports	Total commercial supply	CCC net removals	Commercial: Ending stocks	Commercial: Disappearance	All milk price 2/
	Billion pounds									$/cwt
1980	128.4	2.4	126.1	5.4	2.1	133.6	8.8	5.8	119.0	13.05
1981	132.8	2.3	130.5	5.8	2.3	138.5	12.9	5.4	120.3	13.77
1982	135.5	2.4	133.1	5.4	2.5	141.0	14.3	4.6	122.1	13.61
1983	139.7	2.4	137.3	4.6	2.6	144.5	16.8	5.2	122.5	13.58
1984	135.4	2.9	132.5	5.2	2.7	140.5	8.6	4.9	126.9	13.46
1985	143.1	2.5	140.7	4.9	2.8	148.4	13.2	4.6	130.6	12.75
1986 P	144.1	2.3	141.8	4.6	2.7	149.1	10.6	4.2	134.3	12.48
1987 F	141.8	2.3	139.5	4.2	2.7	146.4	5.3	4.4	136.7	12.50

1/ Milkfat basis. Totals may not add because of rounding. 2/ Delivered to plants and dealers; does not reflect deductions. P = preliminary. F = forecast. Information contact: Jim Miller (202) 786-1830.

Table 13.—Poultry & Eggs

	Annual			1986				1987		
	1984	1985	1986	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Broilers										
Federally inspected slaughter, certified (mil lb)	12,998.6	13,569.2	14,265.6	1,115.8	1,255.7	1,050.4	1,252.2	1,275.7	1,157.8	1,294.6
Wholesale price, 12-city, (cts/lb)	55.6	50.8	56.9	50.3	61.6	57.5	50.0	51.8	48.8	48.5
Price of grower feed ($/ton)	233	187	NA	NA	177	NA	NA	174	NA	NA
Broiler-feed price ratio 1/	2.8	3.1	NA	NA	4.6	NA	NA	3.6	NA	NA
Stocks beginning of period (mil lb)	21.2	19.7	26.6	25.2	25.0	25.3	22.5	23.9	27.2	23.5
Broiler-type chicks hatched (mil) 2/	4,593.9	4,803.8	5,013.3	432.9	416.2	402.6	437.3	439.6	406.2	457.2
Turkeys										
Federally inspected slaughter, certified (mil lb)	2,574	2,800	3,133	193.6	365.8	307.1	248.2	215.4	211.9	241.0
Wholesale price, New York, 8-16 lb. young hens (cts/lb)	74.4	75.5	72.2	63.9	83.2	80.7	71.1	55.3	58.5	60.3
Price of turkey grower feed ($/ton)	245	212	NA	NA	215	NA	NA	210	NA	NA
Turkey-feed price ratio 1/	3.8	4.4	NA	NA	4.9	NA	NA	3.3	NA	NA
Stocks beginning of period (mil lb)	161.8	125.3	150.2	163.6	511.6	543.2	249.0	178.2	198.3	211.4
Poults placed in U.S. (mil)	190.0	197.8	225.4	20.8	14.1	13.8	17.7	21.1	22.6	25.2
Eggs										
Farm production (mil)	68,498	68,261	68,579	5,910	5,797	5,729	5,960	5,920	5,350	6,030
Average number of layers (mil) 3/	278	277	278	232	232	233	235	237	236	236
Rate of lay (eggs per layer on farms) 3/	245	247	247	21.3	20.8	20.5	21.2	20.9	18.9	21.4
Cartoned price, New York, grade A large (cts/doz) 4/	80.9	66.4	71.1	80.8	69.6	77.2	75.5	67.1	65.2	62.0
Price of laying feed ($/ton)	206	182	NA	NA	166	NA	NA	164	NA	NA
Egg-feed price ratio 1/	6.8	6.3	NA	NA	7.0	NA	NA	7.2	NA	NA
Stocks, first of month										
Shell (mil doz)	.39	.93	.72	.63	.87	.60	.87	.66	.60	.75
Frozen (mil doz)	8.9	10.2	10.0	9.7	10.6	10.6	9.9	9.8	10.9	10.2
Replacement chicks hatched (mil)	458	407	425	39.5	32.4	27.5	33.3	34.2	35.2	42.3

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks are currently reported for 12 states only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Monthly data only available for 20 states. 4/ Price of cartoned eggs to volume buyers for delivery to retailers. NA = not available.

Information contact: Allen Baker (202) 786-1830.

Table 14.—Dairy

	Annual			1986				1987		
	1984	1985	1986	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Milk prices, Minnesota-Wisconsin 3.5% fat ($/cwt) 1/	12.29	11.48	11.30	11.02	11.69	11.91	11.88	11.70	11.27	11.03
Wholesale prices										
Butter, Grade A Chi. (cts/lb)	148.8	141.1	144.5	137.5	153.5	151.9	145.5	137.3	136.7	137.8
Am. cheese, Wis. assembly pt. (cts/lb)	138.0	127.7	127.3	123.2	130.2	133.4	130.4	127.7	122.5	122.2
Nonfat dry milk, (cts/lb) 2/	90.9	84.0	80.6	79.9	81.2	82.0	81.4	82.0	79.0	78.9
USDA net removals										
Total milk equiv. (mil lb) 3/	8,637.0	13,174.1	10,628.1	821.1	90.1	7.7	390.1	1,201.3	862.8	644.5
Butter (mil lb)	202.3	334.2	287.6	20.8	-.1	-1.6	9.6	45.1	31.1	16.9
Am. cheese (mil lb)	447.3	629.0	468.4	39.3	8.7	3.0	19.0	26.7	21.8	29.9
Nonfat dry milk (mil lb)	678.4	940.6	827.3	65.6	22.3	24.3	46.8	49.9	41.2	57.7
Milk										
Milk prod. 21 states (mil lb)	114,545	121,043	122,185	10,659	9,732	9,400	9,717	9,932	9,279	10,376
Milk per cow (lb)	12,691	13,160	13,445	1,148	1,090	1,056	1,095	1,123	1,052	1,180
Number of milk cows (thou)	9,026	9,198	9,088	9,283	8,932	8,900	8,873	8,845	8,818	8,792
U.S. milk production (mil lb)	135,450	143,147	144,080	6/12,653	6/11,460	6/11,057	6/11,430	6/11,683	6/10,933	6/12,261
Stock, beginning										
Total (mil lb)	22,646	16,704	13,695	14,142	16,022	15,088	13,994	12,867	12,939	13,071
Commercial (mil lb)	5,234	4,937	4,590	4,912	5,114	4,823	4,342	4,165	4,480	4,363
Government (mil lb)	17,412	11,767	9,105	9,230	10,907	10,266	9,652	8,702	8,459	8,709
Imports, total (mil lb) 3/	2,741	2,777	2,733	203	273	277	324	190	151	NA
Commercial disappearance milk equiv. (mil lb)	126,912	130,630	134,291	11,812	11,737	11,617	11,344	10,160	10,160	NA
Butter										
Production (mil lb)	1,103.3	1,247.8	1,202.4	119.2	85.3	80.3	101.3	109.2	97.8	107.6
Stocks, beginning (mil lb)	499.4	296.5	205.5	242.4	279.6	253.3	218.5	193.0	202.6	231.6
Commercial disappearance (mil lb)	902.7	918.2	922.9	102.1	84.0	91.4	94.4	59.0	72.1	NA
American cheese										
Production (mil lb)	2,648.5	2,855.2	2,798.2	255.4	196.4	194.1	217.7	219.5	211.2	238.7
Stocks, beginning (mil lb)	1,161.5	960.5	850.2	822.3	866.9	818.3	770.8	697.1	674.2	635.3
Commercial disappearance (mil lb)	2,253.6	2,279.1	2,382.8	208.0	213.7	215.5	211.7	177.9	189.4	NA
Other cheese										
Production (mil lb)	2,025.5	2,225.7	2,411.0	201.7	213.8	206.8	221.7	194.0	189.7	217.2
Stocks, beginning (mil lb)	104.9	101.4	94.1	91.3	89.1	93.8	91.5	92.0	93.5	88.1
Commercial disappearance (mil lb)	2,310.9	2,515.7	2,684.9	221.7	247.3	240.8	254.4	206.1	209.9	NA
Nonfat dry milk										
Production (mil lb)	1,160.7	1,390.0	1,284.1	127.2	68.8	66.7	89.4	82.1	80.3	87.9
Stocks, beginning (mil lb)	1,405.2	1,247.6	1,011.1	947.0	844.9	793.4	742.6	686.8	596.6	559.7
Commercial disappearance (mil lb)	497.8	435.0	479.1	50.7	58.7	38.7	28.8	34.8	28.4	NA
Frozen dessert										
Production (mil gal) 4/	1,241.8	1,251.0	1,287.9	106.3	100.9	81.3	82.6	79.9	90.0	107.5

	Annual			1985		1986				1987
	1984	1985	1986	III	IV	I	II	III	IV	I P
Milk production (mil lb)	135,450	143,147	144,080	36,685	35,424	36,172	38,350	35,610	33,947	34,877
Milk per cow (lb)	12,506	12,894	13,293	3,305	3,174	3,251	3,505	3,327	3,208	3,328
No. of milk cows (thou)	10,833	11,016	10,839	11,099	11,162	11,126	10,943	10,703	10,583	10,481
Milk-feed price ratio 5/	1.59	1.72	1.74	1.68	1.76	1.73	1.63	1.71	1.90	1.88
Returns over concentrate costs ($/cwt milk) 5/	9.52	9.54	9.20	9.13	9.61	9.37	8.50	8.88	10.05	9.75

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area, high heat spray process. 3/ Milk-equivalent, fat-basis. 4/ Ice cream, ice milk, and hard sherbet. 5/ Based on average milk price after adjustment for price-support deductions. 6/ Estimated. P = preliminary. NA = not available.

Information contact: Jim Miller (202) 786-1830.

Table 15.—Wool

	Annual			1986				1987		
	1984	1985	1986	Mar	Oct	Nov	Dec	Jan	Feb	Mar
U.S. wool price, Boston 1/ (cts/lb)	229	192	191	180	190	190	190	193	202	216
Imported wool price, Boston 2/ (cts/lb)	241	197	201	205	190	199	208	211	212	234
U.S. mill consumption, scoured										
Apparel wool (thou lb)	128,982	106,051	126,768	10,032	11,114	9,321	10,109	10,426	11,516	14,380
Carpet wool (thou lb)	13,088	10,562	9,960	758	980	737	534	709	811	1,308

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" and up. 2/ Wool price delivered at U.S. mills, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents.

Information contact: John Lawler (202) 786-1840.

Table 16.—Meat Animals

	Annual			1986				1987		
	1984	1985	1986	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Cattle on feed (7-States)										
Number on feed (thou head) 1/	8,006	8,635	7,920	7,322	6,811	7,546	7,826	7,633	7,294	7,143
Placed on feed (thou head)	20,772	19,346	20,005	1,650	2,403	1,814	1,405	1,591	1,427	1,754
Marketings (thou head)	18,785	18,889	19,243	1,593	1,587	1,447	1,494	1,803	1,473	1,586
Other disappearance (thou head)	1,376	1,132	1,049	86	81	87	104	127	105	89
Beef steer-corn price ratio, Omaha 2/	21 6	23.3	31.0	24.0	42.5	40.3	38.9	40.5	44.0	41.6
Hog-corn price ratio, Omaha 2/	16.1	17 8	27.8	17.6	39.0	34.7	33.4	32.7	35.1	32.6
Market prices ($ per cwt)										
Slaughter cattle:										
Choice steers, Omaha	65.34	58.37	57.75	55.55	59.73	61.54	59.82	58.79	61.02	61.58
Utility cows, Omaha	38.91	38.32	37.19	38.00	37.32	35.88	35.48	39.79	42.29	45.01
Choice vealers, 5. St. Paul	63.95	58.28	59.92	55.00	67.50	67.50	67.50	65.94	68.28	70.00
Feeder cattle:										
Choice, Kansas City, 600-700 lb.	65.28	64.56	62.79	63.22	65.10	64.13	65.00	69.00	71.38	71.13
Slaughter hogs:										
Barrows & gilts, 7-markets	48.86	44.77	51.19	40.88	54.21	53.62	51.42	47.39	48.73	48.10
Feeder pigs:										
5. Mo. 40-50 lb. (per head)	39.12	37.20	45.62	41.33	53.23	50.00	47.69	47.00	53.96	54.98
Slaughter sheep & lambs:										
Lambs, Choice, San Angelo	62.18	68.61	68.46	63.58	59.65	65.42	73.33	78 56	75.75	86.50
Ewes, Good, San Angelo	20.90	34.02	34.78	33.12	36.85	37.58	38.00	39.81	41.25	42.50
Feeder lambs:										
Choice, San Angelo	61.02	85.91	73.14	66.69	81.45	83.50	89.92	95.88	99.50	108.50
Wholesale meat prices, Midwest										
Choice steer beef, 600-700 lb.	98.01	90.76	88.98	85.04	91.80	95.70	92.04	89.70	91.69	92.86
Canner & Cutter cow beef	74.70	74 13	71.31	72.12	71.44	68.92	69.58	77.92	80.89	84.58
Pork loins, 8-14 lb. 3/	96.36	91.51	104.78	88.12	109.81	100.13	102.30	98.29	89.40	93.25
Pork bellies, 12-14 lb.	60 08	59.50	65.82	50.80	60.32	63.30	64.72	66.32	57 81	60.02
Hams, skinned, 14-17 lb.	78.22	67.50	80.01	61.12	105.20	109.40	97.43	65.75	65.43	71.97
Commercial slaughter (thou head)*										
Cattle	37,582	36,293	37,292	2,839	3,285	2,819	3,076	3,199	2,662	2,904
Steers	17,474	16,912	17,519	1,339	1,586	1,280	1,399	1,531	1,284	1,413
Heifers	10,691	11,237	11,098	871	931	793	875	1,006	825	892
Cows	8,617	7,387	7,960	573	703	680	746	608	502	541
Bulls & stags	789	758	715	56	65	57	55	54	52	58
Calves	3,297	3,385	3,407	294	295	256	289	263	239	266
Sheep & lambs	6,759	6,165	5,632	540	511	413	454	428	400	442
Hogs	85,168	84,492	79,504	6,857	7,279	6,255	6,796	6,917	6,055	6,966
Commercial production (mil lb)										
Beef	23,418	23,557	24,215	1,860	2,146	1,808	1,971	2,102	1,747	1,907
Veal	479	499	510	43	44	37	41	39	36	38
Lamb & mutton	371	352	330	32	30	24	27	25	24	27
Pork	14,720	14,729	13,983	1,198	1,279	1,115	1,220	1,244	1,070	1,226

	Annual			1985	1986				1987	
	1984	1985	1986	IV	I	II	III	IV	I	II
Cattle on feed (13-States)										
Number on feed (thou head) 1/	9,908	10,653	9,754	7,937	9,754	8,945	7,970	8,197	9,235	---
Placed on feed (thou head)	24,917	23,326	23,549	7,365	5,270	5,221	6,336	6,726	5,700	---
Marketings (thou head)	22,540	22,887	22,836	5,224	5,763	5,821	5,876	5,376	5/5,767	---
Other disappearance (thou head)	1,632	1,398	1,236	324	316	375	233	312	371	---
Hogs & pigs (10-States) 4/										
Inventory (thou head) 1/	42,420	41,100	38,670	41,820	41,100	38,210	37,845	39,335	39,870	39,235
Breeding (thou head) 1/	5,348	5,258	5,050	5,377	5,258	4,948	4,840	4,840	5,155	5,230
Market (thou head) 1/	37,072	35,842	34,620	36,443	35,842	33,262	33,005	34,495	34,715	34,005
Farrowings (thou head)	9,020	8,831	8,208	2,265	1,863	2,161	2,034	2,150	1,957	5/2,305
Pig crop (thou head)	67,680	67,648	63,714	17,255	14,254	16,878	15,853	16,729	15,156	---

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live-weight. 3/ Beginning January 1984 prices are for 14-17 lbs.; January 1986 prices are for 14-18 lbs. 4/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 5/ Intentions. *Classes estimated.

Information contact: Ron Gustafson or Leland Southard (202) 786-1830.

Table 17.—Supply & Utilization[1,2]

	Area											
	Set aside 3/	Planted	Harvested	Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Mil. acres			Bu/acre	Mil. bu							$/bu
Wheat												
1982/83	5.8	86.2	77.9	35.5	2,765	3,932	195	713	1,509	2,417	1,515	3.45
1983/84	30.0	76.4	61.4	39.4	2,420	3,939	369	742	1,429	2,540	1,399	3.51
1984/85	18.6	79.2	66.9	38.8	2,595	4,003	405	749	1,424	2,578	1,425	3.39
1985/86*	18.8	75.6	64.7	37.5	2,425	3,865	273	771	915	1,960	1,905	3.08
1986/87*	20.5	72.0	60.7	34.4	2,087	4,007	350	784	1,025	2,159	1,848	2.40
1987/88*	--	--	--	--	2,110	3,973	175	795	1,225	2,195	1,778	2.30-2.60
	Mil. acres			lb/acre	Mil cwt (rough equiv.)							$/cwt
Rice												
1982/83	0.42	3.30	3.26	4,710	153.6	203.4	--	6/62.9	68.9	131.8	71.5	7.91
1983/84	1.74	2.19	2.17	4,598	99.7	171.9	--	6/54.7	70.3	125.0	46.9	8.57
1984/85	.79	2.83	2.80	4,954	138.8	187.3	--	6/60.5	62.1	122.6	64.7	8.04
1985/86*	1.24	2.51	2.49	5,414	134.9	201.8	--	6/65.8	58.7	124.5	77.3	6.53
1986/87*	1.26	2.40	2.38	5,648	134.4	213.9	--	6/71.3	80.0	151.3	62.6	3.85
1987/88*	--	--	--	--	135.0	189.8	--	6/75.0	78.0	153.0	46.8	3.45-4.25
	Mil. acres			Bu/acre	Mil. bu							$/bu
Corn												
1982/83	2.1	81.8	72.7	113.2	8,235	10,772	4,521	894	1,834	7,249	3,523	2.55
1983/84	32.2	60.2	51.5	81.1	4,175	7,700	3,818	975	1,901	6,694	1,006	3.21
1984/85	3.9	80.5	71.9	106.7	7,674	8,684	4,079	1,091	1,865	7,036	1,648	2.63
1985/86*	5.4	83.4	75.2	118.0	8,877	10,536	4,095	1,160	1,241	6,496	4,040	2.23
1986/87*	13.0	76.7	69.2	119.3	8,253	12,295	4,550	1,180	1,450	7,180	5,115	1.45-1.65
1987/88*	--	--	--	--	7,200	12,320	4,650	1,200	1,600	7,450	4,870	1.60-1.90
	Mil. acres			Bu/acre	Mil. bu							$/bu
Sorghum												
1982/83	0.7	16.0	14.1	59.1	835	1,154	495	10	210	715	439	2.47
1983/84	5.7	11.9	10.0	48.7	488	927	385	10	245	640	287	2.74
1984/85	.6	17.3	15.4	56.4	866	1,154	539	18	297	854	300	2.32
1985/86*	.9	18.3	16.8	66.8	1,120	1,420	664	28	178	870	550	1.93
1986/87*	2.5	15.3	13.9	67.7	942	1,492	500	29	225	754	738	1.30-1.50
1987/88*	--	--	--	--	678	1,417	500	30	225	755	662	1.50-1.80
	Mil. acres			Bu/acre	Mil. bu							$/bu
Barley												
1982/83	0.4	9.6	9.0	57.2	516	676	241	170	47	458	217	2.18
1983/84	1.1	10.4	9.7	52.3	509	733	282	170	92	544	189	2.47
1984/85	.5	12.0	11.2	53.4	599	799	304	170	77	551	247	2.29
1985/86*	.7	13.2	11.6	51.0	591	847	323	169	22	524	323	1.98
1986/87*	1.8	13.1	12.0	50.8	610	937	300	174	150	624	315	1.60
1987/88*	--	--	--	--	546	866	305	175	125	605	261	1.50-1.70
	Mil. acres			Bu/acre	Mil. bu							$/bu
Oats												
1982/83	0.1	14.0	10.3	57.8	593	749	441	85	3	529	220	1.49
1983/84	.3	20.3	9.1	52.6	477	727	466	78	2	546	181	1.62
1984/85	.1	12.4	8.2	58.0	474	689	433	74	1	509	180	1.67
1985/86*	.1	13.3	8.2	63.7	521	729	460	82	2	544	185	1.23
1986/87*	0.7	14.7	6.9	56.0	385	599	400	85	2	487	112	1.10
1987/88*	--	--	--	--	482	624	405	85	2	492	132	1.10-1.30
	Mil. acres			Bu/acre	Mil. bu							$/bu
Soybeans												
1982/83	0	70.9	69.4	31.5	2,190	2,444	7/86	1,108	905	2,099	345	5.69
1983/84	0	63.8	62.5	26.2	1,636	1,981	7/79	983	743	1,805	176	7.63
1984/85	0	67.8	66.1	28.1	1,861	2,037	7/93	1,030	598	1,721	316	5.84
1985/86*	0	63.1	61.5	34.1	2,099	2,415	7/86	1,053	740	1,879	536	5.05
1986/87*	0	61.5	59.4	33.8	2,007	2,543	7/103	1,145	700	1,948	595	4.75
1987/88*	--	--	--	--	1,825	2,420	7/ 90	1,160	650	1,900	520	4.75-5.25
								Mil. lbs				¢/lb
Soybean oil												
1982/83	--	--	--	--	12,041	13,144	--	8,858	2,025	11,883	1,261	20.6
1983/84	--	--	--	--	10,872	12,133	--	9,588	1,824	11,412	721	30.6
1984/85	--	--	--	--	11,468	12,209	--	9,917	1,660	11,577	632	29.5
1985/86*	--	--	--	--	11,617	12,257	--	10,053	1,257	11,310	947	18.0
1986/87*	--	--	--	--	12,478	13,425	--	10,500	1,350	11,850	1,575	15.0
1987/88*	--	--	--	--	12,575	14,150	--	10,900	1,350	12,250	1,900	12.0-16.0
								Thou. tons				$/$/ton
Soybean meal												
1982/83	--	--	--	--	26,714	26,889	--	18,306	7,109	26,415	474	187
1983/84	--	--	--	--	22,756	23,230	--	17,615	5,360	22,975	255	188
1984/85	--	--	--	--	24,529	24,784	--	19,480	4,917	24,397	387	125
1985/86*	--	--	--	--	24,951	25,338	--	19,090	6,036	25,126	212	155
1986/87*	--	--	--	--	27,058	27,270	--	20,500	6,500	27,000	270	152
1987/88*	--	--	--	--	27,280	27,550	--	21,250	6,000	27,250	300	145-170

See footnotes at end of table.

Table 17.— Supply & Utilization, continued

	Area						Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Set aside 3/	Planted	Harvested	Yield	Production	Total supply 4/						
	Mil. acres			lb/acre	Mil. bales							¢/lb
Cotton 10/												
1982/83	1.6	11.3	9.7	580	12.0	18.6	--	5.5	5.2	10.7	7.9	59.5
1983/84	6.8	7.9	7.3	508	7.8	15.7	--	5.9	6.8	12.7	2.8	65.3
1984/85	2.5	11.1	10.4	600	13.0	15.8	--	5.5	6.2	11.8	4.1	58.7
1985/86*	3.6	10.7	10.2	630	13.4	17.6	--	6.4	2.0	8.4	9.4	56.5
1986/87*	3.6	10.0	8.5	552	9.7	19.1	--	7.3	6.7	14.0	5.2	52.2
1987/88*	--	--	--	--	12.0	17.2	--	7.0	6.0	13.0	4.3	--

*May 11, 1987 Supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, and oats, August 1 for cotton and rice, September 1 for soybeans, corn, and sorghum, October 1 for soymeal, and soyoil). 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt. of rice, and 4.59 480-pound bales of cotton. 3/ Includes diversion, PIK, and acreage reduction programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding and Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Average of crude soybean oil, Decatur. 9/ Average of 44 percent, Decatur. 10/ Upland and extra long staple. Stock estimates based on Census Bureau data which results in an unaccounted difference between supply and use estimates and changes in ending stocks.

Information contact: National Economics Division, Crops Branch (202) 786-1840.

Table 18.—Food Grains

	Marketing year 1/				1986			1987		
	1982/83	1983/84	1984/85	1985/86	Mar	Nov	Dec	Jan	Feb	Mar
Wholesale prices										
Wheat, No. 1 HRW, Kansas Ctty ($/bu) 2/	3.94	3.84	3.74	3.28	3.36	2.68	2.68	2.70	2.80	2.90
Wheat, DNS, Minneapolis ($/bu) 2/	3.95	4.21	3.70	3.25	3.33	2.81	2.77	2.82	2.65	2.61
Rice, S.W. La. ($/cwt) 3/	18.00	19.38	17.98	16.11	17.50	9.94	10.13	10.13	9.96	9.93
Wheat										
Exports (mil bu)	1,509	1,429	1,424	915	74	68	58	74	76	NA
Mill grind (mil bu)	656	694	676	707	55	66	65	60	60	NA
Wheat flour production (mil cwt)	292	308	301	317	25	29	29	27	27	NA
Rice										
Exports (mil cwt, rough equiv)	68.9	70.3	62.1	58.7	3.5	6.5	4.6	5.2	5.4	4.6

	Marketing year 1/			1985	1986				1987
	1983/84	1984/85	1985/86	June-Sept	Oct-Dec	Jan-Mar	Apr-May	Jun-Aug	Sept-Nov	Dec-Feb
Wheat										
Stocks, beginning (mil bu)	1,515	1,399	1,425	1,425.2	2,971.1	2,526.1	2,130.0	1,905.0	3,154.6	2,671.5
Domestic use:										
Food (mil bu)	643	651	678	223.7	176.8	166.9	110.7	171.1	187.6	169.9
Feed & seed (mil bu) 4/	469	502	371	334.7	24.9	4.9	1.8	379.7	34.9	46.2
Exports (mil bu)	1,429	1,424	915	326.6	247.3	226.1	115.3	320.6	264.2	208.1

1/ Beginning June 1 for wheat and August 1 for rice. 2/ Ordinary protein. 3/ Long-grain, milled basis. 4/ Feed use approximated by residual. NA = not available.

Information contacts: Allen Schienbein and Janet Livezey (202) 786-1840.

Table 19.—Cotton

	Marketing year 1/				1986			1987		
	1982/83	1983/84	1984/85	1985/86	Mar	Nov	Dec	Jan	Feb	Mar
U.S. price, SLM, 1-1/16 in. (cts/lb) 2/	63.1	73.1	60.5	60.0	61.8	45.7	54.2	57.2	54.8	52.4
Northern Europe prices:										
Index (cts/lb) 3/	76.7	87.6	69.2	48.9	52.4	52.8	59.2	65.7	65.9	63.0
U.S. M 1-3/32" (cts/lb) 4/	78.0	87.1	73.9	64.8	71.8	54.3	62.1	65.3	64.8	62.5
U.S. mill consumption (thou bales)	5,512.8	5,927.0	5,544.5	6,398.9	541.8	554.4	555.5	620.8	587.0	647.3
Exports (thou bales)	5,206.8	6,786.0	6,201.3	1,969.2	188.0	571.3	543.7	459.9	530.7	NA
Stocks, beginning (thou bales)	6,632	7,937	2,775	4,102	12,448	11,970	13,112	13,139	12,761	11,813

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Outlook "A" index; average of five lowest priced of 10 selected growths. 4/ Memphis territory growths. NA = not available.

Information contact: Bob Skinner (202) 786-1840.

Table 20.—Feed Grains

	Marketing year 1/				1986			1987		
	1982/83	1983/84	1984/85	1985/86	Mar	Nov	Dec	Jan	Feb	Mar
Wholesale prices										
Corn, No. 2 yellow, Chicago ($/bu)	2.81	3.46	2.79	2.35	2.45	1.68	1.66	1.57	1.50	1.60
Sorghum, No. 2 yellow, Kansas City ($/cwt)	4.80	5.22	4.46	3.72	3.82	2.70	2.62	2.50	2.57	2.80
Barley, feed, Minneapolis ($/bu)	1.76	2.48	2.09	1.53	--	1.63	1.23	--	--	3/ 1.64
Barley, malting, Minneapolis ($/bu)	2.53	2.84	2.55	2.24	2.34	2.02	1.88	1.81	1.92	2.01
Exports										
Corn (mil bu)	1,834	1,902	1,865	1,241	98	115	111	105	99	NA
Feed grains (mil metric tons) 2/	53.0	56.5	56.6	36.6	4.7	3.6	3.6	3.1	3.4	NA

	Marketing year 1/				1985	1986				1987
	1982/83	1983/84	1984/85	1985/86	Sept-Nov	Dec-Feb	Mar-May	June-Aug	Sept-Nov	Dec-Feb
Corn										
Stocks, beginning (mil bu)	2,537	3,523	1,006	1,648	1,648	8,615	6,587	4,990	4,040	10,304
Domestic use:										
Feed (mil bu)	4,521	3,818	4,079	4,095	1,215	1,300	1,086	494	1,388	1,472
Food, seed, ind. (mil bu)	895	975	1,091	1,160	278	264	309	308	280	270
Exports (mil bu)	1,834	1,902	1,865	1,241	418	465	204	154	321	315
Total use (mil bu)	7,249	6,694	7,036	6,496	1,911	2,029	1,599	956	1,989	2,058

1/ September 1 for corn and sorghum; June 1 for oats and barley. 2/ Aggregated data for corn, sorghum, oats, and barley. 3/ Beginning March 1987 reporting point changed from Minneapolis to Duluth.

Information contacts: Dave Hull (202) 786-1840

Table 21.—Fats & Oils

	Marketing year 1/				1986				1987	
	1982/83	1983/84	1984/85	1985/86	Feb	Oct	Nov	Dec	Jan	Feb
Soybeans										
Wholesale price, No. 1 yellow, Chicago ($/bu) 2/	6.11	7.78	5.88	5.20	5.29	4.74	4.96	4.88	4.90	4.84
Crushings (mil bu)	1,107.8	982.7	1,030.5	1,052.8	81.4	107.0	109.3	107.6	110.3	102.3
Exports (mil bu)	905.2	742.8	598.2	740.0	92.1	89.7	96.6	88.2	71.3	73.8
Stocks, beginning (mil bu)	254.5	344.6	175.7	316.0	124.5	38.3	108.1	127.4	117.2	113.1
Soybean oil										
Wholesale price, crude, Decatur (cts/lb)	20.62	30.55	29.52	18.0	18.64	14.63	14.88	14.94	15.60	15.21
Production (mil lb)	12,040.4	10,872.0	11,467.9	11,620.4	894.8	1,166.5	1,171.5	1,150.2	1,186.6	1,109.6
Domestic disap. (mil lb)	9,857.3	9,598.6	9,916.7	10,062.8	780.4	999.1	867.5	888.4	787.0	909.1
Exports (mil lb)	2,024.7	1,813.6	1,659.8	1,257.2	100.7	146.5	27.4	25.3	67.9	71.0
Stocks, beginning (mil lb)	1,102.5	1,260.9	720.5	632.5	1,167.4	946.6	963.6	1,268.9	1,506.5	1,837.3
Soybean meal										
Wholesale price, 44% protein, Decatur ($/ton)	187.19	188.21	125.46	154.90	152.25	165.40	154.00	149.60	146.80	154.40
Production (thou ton)	26,713.6	22,756.2	24,529.3	24,957.8	1,925.2	2,521.3	2,562.8	2,527.3	2,540.7	2,409.9
Domestic disap. (thou ton)	19,306.0	17,615.2	19,481.7	19,122.3	1,397.2	2,005.8	1,575.4	1,788.7	1,944.7	1,513.5
Exports (thou ton)	7,108.7	5,359.7	4,916.5	6,007.0	819.1	511.5	818.4	877.7	592.8	930.1
Stocks, beginning (thou ton)	175.2	474.1	255.4	387.0	372.4	211.7	218.0	387.3	240.3	311.2
Margarine, wholesale price, Chicago, white (cts/lb)	41.1	46.3	55.4	42.1	42.66	38.69	38.88	38.55	39.25	39.75

1/ Beginning September 1 for soybeans; October 1 for soymeal and oil; calendar year for margarine. 2/ Beginning April 1, 1982, prices based on 30-day delivery, using upper end of the range.

Information contacts: Roger Hoskin (202) 786-1840; Tom Bickerton (202) 786-1691.

Table 22.—Farm Programs, Price Supports, Participation & Payment Rates

	Target price	Loan rate	Findley loan rate	Payment rates: Deficiency	Paid land diversion	PIK	Base acres	Program 1/	Participation rate 2/
			$/bu.			Percent 3/	Mil. acres		Percent of base
Wheat									
1982/83	4.05	3.55		.50			80.7	15/0/0	48
1983/84	4.30	3.65		.65	2.70	95	90.9	15/5/10-30	78/78/51
1984/85	4.38	3.30		1.00	2.70	85	94.0	20/10/10-20	60/60/20
1985/86	4.38	3.30		1.08	2.70		94.0	20/10/0	73
1986/87 4/	4.38	3.00	2.40	1.98	2.00	1.10	81.7	22.5/5 or 10/2.5	84/21/84
1987/88	4.38	2.85	2.28	2.10			89.6	27.5/0/0	83
			$/cwt						
Rice									
1982/83	10.85	8.14		2.71			3.97	15/0/0	78
1983/84	11.40	8.14		2.77	2.70	80	3.95	15/5/10-30	98/88/87
1984/85	11.90	8.00		3.76			4.16	25/0/0	85
1985/86	11.90	8.00	5/3.40	3.90	3.50		4.23	20/15/0	89
1986/87 4/	11.90	7.20	5/3.45	4.70			4.20	35/0/0	92
1987/88	11.66	6.84	5/3.50	4.82			4.22	35/0/0	93
			$/bu.						
Corn									
1982/83	2.70	6/2.55		.15			81.2	10/0/0	29
1983/84	2.86	2.65		0	1.50	80	82.8	10/10/10-30	71/71/60
1984/85	3.03	2.55		.43			80.8	10/0/0	54
1985/86	3.03	2.55		.48			84.2	10/0/0	69
1986/87 4/	3.03	2.40	1.92	1.11	.73		81.8	17.5/2.5/0	85
1987/88	3.03	2.38	1.82	1.21	2.00		83.3	20/15/0	88/85
			$/bu.						
Sorghum									
1982/83	2.60	2.42		.18			17.7	7/[same]	47
1983/84	2.72	2.52		0	1.50	80	18.0		72/72/53
1984/85	2.88	2.42		.46			18.2		42
1985/86	2.88	2.42		.46			19.3		55
1986/87 4/	2.88	2.28	1.82	1.06	.65		18.7		75
1987/88	2.88	2.18	1.74	1.14	1.90		18.1		83/42
			$/bu.						
Barley									
1982/83	2.60	2.08		.40			10.5	7/[same]	46
1983/84	2.60	2.16		.21	1.00		11.0		55/55/0
1984/85	2.60	2.08		.26			11.6		44
1985/86	2.60	2.08		.52			13.3		57
1986/87 4/	2.60	1.95	1.56	1.04	.57		12.4		73
1987/88	2.60	1.86	1.49	1.11	1.60		12.9		82/23
			$/bu.						
Oats									
1982/83	1.50	1.31		0			10.4	7/[same]	14
1983/84	1.60	1.36		.11	.75		9.8		20/20/0
1984/85	1.60	1.31		0			9.8		14
1985/86	1.60	1.31		29			9.4		14
1986/87 4/	1.60	1.24	.99	.50	.36		9.5		37
1987/88	1.60	1.18	.94	.58	80		8.7		44/15
			$/bu.						
Soybeans 8/									
1982/83		5.02							
1983/84		5.02							
1984/85		5.02							
1985/86		5.02							
1986/87 4/		5.02	4.77						
1987/88		5.02	4.77						
			¢/lb.						
Upland cotton									
1982/83	71.0	57.10		13.92			18.3	15/0/0	78
1983/84	76.0	55.00		12.10	25.00	85	15.4	20/5/10-30	93/83/77
1984/85	81.0	55.00		18.60			15.6	25/0/0	70
1985/86	81.0	57.30		23.70	30.00		15.8	20/10/0	82/0/0
1986/87 4/	81.0	55.00	9/44.00	26.00			15.6	25/0/0	91
1987/88	79.40	52.25	10/	27.15			15.0	25/0/0	83

1/ Percentage of base acres farmers participating in Acreage Reduction Programs/Paid Land Diversion/PIK were required to devote to conserving uses to receive program benefits. In addition to the percentages shown for 1983/84, farmers had the option of submitting bids to retire their entire base acreages. 2/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/PIK. 3/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1983 and 1984 PIK rates apply only to the 10-30 and 10-20 portions, respectively. 4/ Payment rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 5/ Annual average world market price. 6/ The Reserve loan rate was $2.90. 7/ The sorghum, barley, and oat programs were the same as for corn each year except 1983/84, when PIK was not offered on barley and oats. 8/ There are no target prices, acreage programs, or payment rates for soybeans. 9/ Loan repayment rate. 10/ Loans may be repaid at the lower of the loan rate or world market prices.

Information contact: Larry Van Meir (202) 786-1840.

Table 23.—Fruit

	Calendar years											
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 F
Citrus												
Production (thou ton)	14,586	14,788	15,242	14,255	13,329	16,484	15,105	12,057	13,608	10,792	10,488 3/	12,065
Per capita consumption (lbs) 1/	119.5	117.8	118.8	108.1	108.8	113.1	104.7	110.0	120.7	103.2	115.4	119.4
Non citrus												
Production (thou tons)	12,384	11,846	12,274	12,460	13,689	15,152	12,961	14,217	14,151	14,290	14,230	13,934
Per capita consumption (lbs) 1/	85.5	84.4	84.8	83.3	85.9	87.4	88.2	89.3	89.2	93.4	95.1	94.0

	1986									1987		
	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Fob shipping point prices												
Apples ($/carton) 2/	15.62	18.10	18.50	22.86	NA	17.03	13.70	13.63	14.00	10.67	14.00	14.50
Pears ($/box) 3/	NA	24.18	25.70	NA	14.67	14.00	15.00	15.10	14.50	16.00	15.63	14.75
Oranges ($/box) 4/	3.79	4.19	4.27	3.63	4.03	4.34	4.47	6.58	4.24	4.24	4.75	4.79
Grapefruit ($/box) 4/	4.22	5.20	5.98	6.17	6.76	6.63	6.29	4.19	4.54	4.50	4.55	4.76
Stocks, ending												
Fresh apples (mil lbs)	612.6	267.2	118.8	25.4	7.9	2,349.5	4,142.7	3,532.2	2,891.7	2,307.2	1,720.2	1,174.0
Fresh pears (mil lbs)	35.5	4.9	.7	75.0	124.4	325.1	333.2	281.2	214.7	170.9	127.1	92.1
Frozen fruits (mil lbs)	496.9	461.4	558.1	719.6	741.1	740.7	855.6	777.5	720.9	632.3	563.0	496.4
Frozen orange juice (mil lbs)	1,031.6	1,047.5	1,056.9	920.3	855.3	715.4	577.6	524.8	621.2	877.8	1,015.7	947.2

1/ Per capita consumption of both fresh and processed fruit in fresh weight equivalent. Eighteen fruit items are not included in this year's new per capita consumption series. 2/ Red Delicious, Washington, extra fancy, carton tray pack, 80-113's. 3/ D'Anjou, Washington, standard box wrapped, U.S. No. 1, 90-135's. 4/ U.S. equivalent on-tree returns. 5/ As of May 1, 1987. NA = not available. F = forecast. Information contact: Ben Huang (202) 786-1767.

Table 24.—Vegetables

	Calendar years									
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Production										
Total vegetables (1,000 cwt) 1/	402,936	382,165	413,925	381,370	379,123	431,515	403,320	457,392	453,769	445,436
Fresh (1,000 cwt) 1/ 2/	176,541	182,563	190,859	190,228	194,694	207,924	197,919	217,132	217,932	213,724
Processed (tons) 3/	11,319,750	9,980,100	11,153,300	9,557,100	9,221,460	11,179,590	10,270,050	12,013,020	11,791,860	11,585,630
Mushrooms (1,000 lbs)	398,703	454,007	470,069	469,576	517,146	490,826	561,531	595,691	587,956	NA
Potatoes (1,000 cwt)	355,334	366,314	342,447	302,857	338,591	355,131	333,911	362,612	407,109	352,274
Sweetpotatoes (1,000 cwt)	11,885	13,115	13,370	10,953	12,799	14,833	12,083	12,986	14,853	12,754
Dry edible beans (1,000 cwt)	16,555	18,935	20,552	26,729	32,751	25,563	15,520	21,070	22,175	22,898

	1986									1987		
	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Shipments													
Fresh (1,000 cwt) 4/	17,454	19,210	32,927	26,825	27,818	17,579	15,174	19,275	15,967	15,766	20,607	18,066	22,286
Potatoes (1,000 cwt)	11,953	13,604	16,037	9,882	7,757	8,066	7,907	11,332	9,928	10,836	14,569	10,729	15,668
Sweetpotatoes (1,000 cwt)	413	227	250	177	160	96	246	428	706	389	279	259	293

1/ 1983 data are not comparable with 1984 and 1985. 2/ Estimate reinstated for asparagus with the 1984 crop, all other years also include broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, and tomatoes 3/ Estimates reinstated for cucumbers with the 1984 crop, all other years also include snap beans, sweet corn, green peas, and tomatoes. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, canteloupes, honeydews, and watermelons. NA = not available. Information contact: Shannon Hamm (202) 786-1767.

Table 25.—Other Commodities

	Annual					1986				1987
	1982	1983	1984	1985	1986 F	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar
Sugar										
Production 1/	5,936	5,682	5,890	5,969	6,257	1,618	728	684	3,231	1,568
Deliveries 1/	9,153	8,812	8,454	8,035	7,810	1,834	1,913	2,069	1,993	1,900
Stocks, ending 1/	3,068	2,570	3,005	3,126	3,158	3,384	2,540	1,652	3,158	3,345
Coffee										
Composite green price N.Y. (cts/lb)	132.00	131.51	142.95	137.46	165.18	215.33	190.79	174.92	159.69	115.38
Imports, green bean equiv. (million lbs) 2/	2,352	2,259	2,411	2,550	2,596	810	653	635	498	690 F

	Annual			1986						1987
	1984	1985	1986	Jan	Aug	Sept	Oct	Nov	Dec	Jan
Tobacco										
Prices at auctions 3/										
Flue-cured (dol/lb)	1.81	1.72	1.52	NQ	1.44	1.60	1.50	1.40	NQ	NQ
Burley (dol/lb)	1.88	1.59	1.57	1.60	NQ	NQ	NQ	1.58	1.57	1.62
Domestic consumption 4/										
Cigarettes (bil)	600.4	594.0	584.0	41.4	51.4	50.8	52.0	49.2	48.8	38.1
Large cigars (mil)	3,493	3,226	3,090	225.6	291.7	272.3	268.5	220.9	261.6	225.1

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Green and processed coffee. 3/ Crop year July-June for flue-cured, October-September for burley. 4/ Taxable removals. F = forecast. NQ = no quote.

Information contacts: (sugar) Dave Harvey (202) 786-1769; (coffee) Fred Gray (202) 786-1769; (tobacco) Verner Grise (202) 786-1768.

Table 26.—World Supply & Utilization of Major Crops, Livestock, & Products

	1981/82	1982/83	1983/84	1984/85	1985/86 E	1986/87 F	1987/88 F
				Million units			
Wheat							
Area (hectare)	238.7	237.7	229.1	231.4	229.3	227.7	
Production (metric ton)	449.5	477.5	489.4	511.5	498.8	529.7	505.7
Exports (metric ton) 1/	101.3	98.7	102.0	107.0	84.9	89.8	96.7
Consumption (metric ton) 2/	443.6	462.2	482.2	495.6	487.3	518.2	506.4
Ending stocks (metric ton) 3/	87.0	102.3	109.5	125.3	136.8	148.3	147.6
Coarse grains							
Area (hectare)	349.9	339.7	335.3	335.5	340.8	339.2	
Production (metric ton)	766.0	784.4	686.8	814.0	845.7	839.7	811.7
Exports (metric ton) 1/	96.6	89.6	91.2	100.7	83.3	87.4	90.0
Consumption (metric ton) 2/	737.7	753.1	761.8	783.1	770.7	802.4	822.6
Ending stocks (metric ton) 3/	120.7	151.8	76.9	107.8	182.8	220.1	209.2
Rice, milled							
Area (hectare)	145.2	141.1	144.3	144.4	144.4	144.6	
Production (metric ton)	280.6	285.7	308.0	319.2	320.3	317.7	323.3
Exports (metric ton) 4/	11.8	11.9	12.6	11.5	12.8	11.5	11.8
Consumption (metric ton) 2/	281.5	290.2	308.8	314.2	316.8	321.3	324.2
Ending stocks (metric ton) 3/	21.3	17.3	17.2	22.2	25.7	22.1	20.7
Total grains							
Area (hectare)	733.8	718.5	708.7	711.3	714.1	711.5	
Production (metric ton)	1,496.1	1,547.6	1,484.3	1,644.7	1,664.8	1,687.1	1,640.7
Exports (metric ton) 1/	209.7	200.2	205.8	219.2	181.0	188.7	198.5
Consumption (metric ton) 2/	1,462.8	1,505.5	1,552.8	1,592.8	1,574.8	1,641.9	1,653.2
Ending stocks (metric ton) 3/	229.0	271.4	203.6	255.3	345.3	390.5	377.5
Oilseeds							
Crush (metric ton)	138.9	143.5	136.6	150.6	154.0	156.1	
Production (metric ton)	169.4	178.2	165.6	190.9	195.7	196.5	199.0
Exports (metric ton)	35.9	35.2	33.0	32.9	34.2	34.9	
Ending stocks (metric ton)	13.5	20.5	15.8	21.2	26.6	28.7	
Meals							
Production (metric ton)	94.5	98.1	92.8	101.8	104.1	106.4	
Exports (metric ton)	28.8	31.6	29.6	32.3	33.8	33.7	
Oils							
Production (metric ton)	41.6	43.4	42.3	46.2	49.4	49.6	
Exports (metric ton)	13.4	14.0	13.7	15.6	16.4	16.2	
Cotton							
Area (hectare)	33.0	31.4	31.0	33.9	31.7	29.9	
Production (bale)	71.2	68.0	67.7	88.1	78.9	69.4	77.5
Exports (bale)	20.2	19.4	19.2	20.5	20.2	23.3	23.0
Consumption (bale)	66.0	68.1	68.5	70.4	76.9	81.0	80.5
Ending stocks (bale)	21.1	25.9	25.0	42.7	46.0	34.0	30.8
	1981	1982	1983	1984	1985	1986 F	1987 F
Red meat							
Production (mil metric tons)	93.6	93.9	96.4	98.1	101.8	102.3	102.4
Consumption (mil metric tons)	92.0	92.2	94.7	96.1	99.7	101.0	101.0
Exports (mil metric tons) 1/	5.7	5.8	5.8	5.9	6.3	6.1	6.4
Poultry							
Production (mil metric tons)	22.5	23.1	23.5	24.2	25.2	26.0	27.4
Consumption (mil metric tons)	22.1	22.7	23.5	24.0	24.8	25.5	26.8
Exports (mil metric tons) 1/	1.5	1.8	1.3	1.2	1.2	1.2	1.3
Dairy							
Milk production	389.7	396.9	412.5	413.0	417.9	422.8	423.3

E = estimated. F = forecast. 1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years and do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1981 data correspond with 1980/81, etc.

Information contact: Frederic Surls (202) 786-1693.

Table 27.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1986				1987		
	1984	1985	1986	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Export commodities										
Wheat, f.o.b. vessel, Gulf ports ($/bu)	4.17	3.73	3.19	3.71	2.86	2.80	2.87	3.00	3.09	3.17
Corn, f.o.b. vessel, Gulf ports ($/bu)	3.50	2.89	2.27	2.57	1.69	1.89	1.89	1.77	1.74	1.85
Grain sorghum, f.o.b. vessel, Gulf ports ($/bu)	3.00	2.64	2.16	2.42	1.81	1.89	1.84	1.75	1.75	1.87
Soybeans, f.o.b. vessel, Gulf ports ($/bu)	7.38	5.83	5.45	5.65	5.13	5.24	5.14	5.13	5.08	5.14
Soybean oil, Decatur (cts/lb)	30.75	27.03	16.36	17.41	14.61	14.66	14.68	15.45	15.21	15.03
Soybean meal, Decatur ($/ton)	166.80	127.15	157.62	163.19	152.85	154.05	149.54	147.65	153.24	146.98
Cotton, 8 market avg. spot (cts/lb)	68.37	58.55	53.47	61.75	43.91	45.75	54.15	57.17	54.75	54.60
Tobacco, avg. price at auction (cts/lb)	170.64	172.05	154.26	159.39	145.48	146.40	146.40	144.90	145.82	146.51
Rice, f.o.b. mill, Houston ($/cwt)	19.47	18.49	14.60	17.30	13.00	13.00	13.00	11.13	10.50	10.50
Inedible tallow, Chicago (cts/lb)	17.47	14.33	9.03	9.38	8.44	8.47	8.40	10.69	11.00	10.60
Import commodities										
Coffee, N.Y. spot ($/lb)	1.46	1.42	2.01	2.35	1.87	1.67	1.46	1.27	1.20	1.03
Rubber, N.Y. spot (cts/lb)	49.70	41.91	42.87	41.88	46.87	44.78	44.67	45.83	46.51	46.11
Cocoa beans, N.Y. ($/lb)	1.06	.99	.88	.91	.91	.87	.86	.86	.85	.87

Information contact: Mary Teymourian (202) 786-1692.

Table 28.—Indexes of Nominal & Real Trade-Weighted Dollar Exchange Rates

	1986								1987			
	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
						March 1973=100						
Total U.S. trade 1/												
Nominal	113	114	110	108	107	107	108	107	101	98*	99*	97*
						April 1971=100						
Agricultural trade												
Nominal 2/	4,511	4,498	4,567	4,661	4,680	4,733	4,794	4,903	5,238	6,102	6,954	7,783
Real 3/	84	85	85	87	87	89	90*	89*	86*	81*	81*	81*
Soybeans												
Nominal 2/	103	103	161	250	266	280	294	305	314	327	343	358
Real 3/	74	75	75	75	75	75	76*	75*	72*	67*	67*	65*
Wheat												
Nominal 2/	26,533	26,448	26,499	26,501	26,514	26,733	27,020	27,616	29,557	34,601	39,700	44,815
Real 3/	100	101	100	102	102	109	110*	108*	108*	107*	111*	112*
Corn												
Nominal 2/	4,095	4,083	4,172	4,297	4,320	4,369	4,430	4,534	4,842	5,631	6,407	7,158
Real 3/	77	77	78	80	80	80	80*	80*	77*	71*	70*	69*
Cotton												
Nominal 2/	226	233	231	230	233	236	237	237	234	233	233	272
Real 3/	92	92	91	90	91	92	92*	92*	81*	80*	80*	89*

1/ Federal Reserve Board index of trade-weighted exchange value of the U.S dollar against 10 other major industrial country currencies, plus Switzerland. These currencies dominate the financing of U.S total trade. 2/ Nominal values are percentage changes in currency units per dollar, weighted by proportion of agricultural exports from the United States. An increase indicates that the dollar has appreciated. 3/ The real index deflates the nominal series by consumer price changes of the countries involved, resulting in divergence between nominal and real indexes when high-inflation countries figure significantly. The nominal Federal Reserve index shows little divergence between nominal and real indexes because of similar inflation rates among the countries included. *Preliminary. Information contact: Edward Wilson (202) 786-1688.

Table 29.—Trade Balance

	Fiscal years*									Feb
	1979	1980	1981	1982	1983	1984	1985	1986	1987 F	1987
						$ million				
Exports										
Agricultural	31,978	40,481	43,780	39,095	34,769	38,027	31,201	26,325	26,000	2,221
Nonagricultural	135,839	169,846	185,423	176,310	159,373	170,014	179,236	176,613	NA	15,738
Total 1/	167,818	210,327	229,203	215,405	194,142	208,041	210,437	202,938	NA	17,959
Imports										
Agricultural	16,186	17,276	17,218	15,481	16,271	18,916	19,740	20,875	20,000	1,744
Nonagricultural	177,424	223,590	237,469	233,353	230,629	297,736	313,722	342,855	NA	30,250
Total 2/	193,610	240,866	254,687	248,834	246,900	316,652	333,462	363,730	NA	31,994
Trade balance										
Agricultural	15,793	23,205	26,562	23,614	18,498	19,111	11,461	5,450	6,000	477
Nonagricultural	-41,585	-53,744	-52,046	-57,043	-71,256	-127,722	-134,486	-166,242	NA	-14,512
Total	-25,792	-30,539	-25,484	-33,429	-52,758	-108,611	-123,025	-160,792	NA	-14,035

*Fiscal years begin October 1 and end September 30. Fiscal year 1986 began Oct. 1, 1985 and ended Sept. 30, 1986.
1/ Domestic exports including Department of Defense shipments (F.A.S. value). 2/ Imports for consumption (customs value).
NA = not available. F = forecast. Information contact: Steve MacDonald (202) 786-1621.

Table 30.—U.S. Agricultural Exports & Imports

	Fiscal years*				Feb	Fiscal years*				Feb
	1984	1985	1986	1987 F	1987	1984	1985	1986	1987 F	1987
	Thousand units					$ million				
Exports										
Animals, live (no) 1/	754	996	570	--	32	276	255	344	--	13
Meats & preps., excl. poultry (mt)	422	427	451	2/400	38	929	806	1,012	--	92
Dairy products (mt)	418	423	401	--	26	393	414	430	400	39
Poultry meats (mt)	225	234	265	300	22	280	257	282	--	26
Fats, oils, & greases (mt)	1,395	1,217	1,355	3/1,300	91	703	608	477	--	33
Hides & skins incl. furskins	--	--	--	--	--	1,318	1,325	1,456	--	169
Cattle hides, whole (no) 1/	24,283	25,456	25,973	--	1,877	1,010	1,019	1,150	--	92
Mink pelts (no) 1/	2,551	2,237	2,697	--	814	67	60	65	--	33
Grains & feeds (mt)	108,194	93,903	74,437	--	6,548	17,304	13,285	9,476	4/8,200	651
Wheat (mt)	41,699	28,523	25,490	26,500	1,844	6,497	4,264	3,259	5/3,000	190
Wheat flour (mt)	1,071	718	1,137	1,300	149	234	164	204	--	10
Rice (mt)	2,293	1,972	2,382	2,600	195	897	677	648	500	42
Feed grains, incl. products (mt)	55,546	55,362	36,293	40,400	3,396	8,217	6,884	3,819	3,000	261
Feeds & fodders (mt)	7,021	6,533	8,381	6/8,500	927	1,216	1,004	1,289	--	132
Other grain products (mt)	564	795	754	--	54	243	293	257	--	22
Fruits, nuts, and preps. (mt)	1,931	1,907	2,003	--	167	1,594	1,687	1,766	--	132
Fruit juices incl. froz. (hl) 1/	5,598	4,641	3,652	--	340	223	200	148	--	15
Vegetables & preps. (mt)	1,527	1,420	1,467	--	117	999	846	1,000	--	94
Tobacco, unmanufactured (mt)	227	257	224	200	12	1,433	1,588	1,318	1,400	59
Cotton, excl. linters (mt)	1,481	1,277	482	1,400	116	2,395	1,945	678	1,700	124
Seeds (mt)	252	289	269	--	37	326	352	366	400	45
Sugar, cane or beet (mt)	285	355	375	--	45	74	65	75	--	8
Oilseeds & products (mt)	26,961	23,803	27,557	--	2,959	8,602	6,195	6,266	7/6,000	603
Oilseeds (mt)	20,466	17,886	20,684	8/21,100	2,037	6,254	4,324	4,394	--	401
Soybeans (mt)	19,265	16,621	20,139	20,700	2,009	5,734	3,876	4,174	4,000	383
Protein meal (mt)	5,060	4,606	5,588	5,500	864	1,217	853	1,127	1,000	169
Vegetable oils (mt)	1,435	1,311	1,284	--	58	1,131	1,018	746	--	33
Essential oils (mt)	11	12	7	--	1	96	105	105	--	9
Other	465	443	568	--	70	1,082	1,068	1,126	--	109
Total	143,794	125,967	109,941	116,500	10,249	38,027	31,201	26,325	26,000	2,221
Imports										
Animals, live (no) 1/	1,907	2,120	1,885	--	178	596	569	637	700	53
Meats & preps., excl. poultry (mt)	905	1,123	1,139	1,127	99	1,931	2,214	2,248	2,400	210
Beef & veal (mt)	550	674	693	712	61	1,165	1,295	1,252	1,500	125
Pork (mt)	328	416	406	415	35	703	847	900	900	78
Dairy products (mt)	382	418	400	410	21	757	763	786	800	49
Poultry and products 1/	--	--	--	--	--	122	93	101	--	6
Fats, oils, & greases (mt)	18	21	22	--	1	13	18	17	--	1
Hides & skins, incl. furskins 1/	--	--	--	--	--	216	240	200	--	50
Wool, unmanufactured (mt)	59	43	53	--	5	183	145	160	--	14
Grains & feeds (mt)	1,805	2,070	2,311	2,580	200	534	604	668	700	52
Fruits, nuts, & preps., excl. juices (mt)	4,036	4,483	4,637	4,830	457	1,634	1,891	1,976	2,000	223
Bananas & plantains (mt)	2,727	3,022	3,042	3,100	252	666	752	740	700	65
Fruit juices (hl) 1/	27,247	35,112	31,539	28,000	2,622	671	995	698	600	55
Vegetables & preps. (mt)	2,093	2,140	2,199	2,260	371	1,314	1,347	1,560	1,500	182
Tobacco, unmanufactured (mt)	190	191	208	220	23	563	556	605	700	66
Cotton, unmanufactured (mt)	32	31	41	--	6	17	17	14	--	1
Seeds (mt)	82	82	89	88	14	97	81	111	100	15
Nursery stock & cut flowers 1/	--	--	--	--	--	292	318	353	--	8
Sugar, cane or beet (mt)	2,829	2,338	1,905	1,900	117	1,144	812	654	--	34
Oilseeds & products (mt)	1,137	1,271	1,508	1,789	120	799	784	639	600	40
Oilseeds (mt)	223	253	197	--	10	95	98	69	--	5
Protein meal (mt)	118	159	138	--	17	21	17	15	--	2
Vegetable oils (mt)	797	859	1,173	--	93	683	670	555	--	33
Beverages excl. fruit juices (hl) 1/	14,120	15,494	15,488	--	1,063	1,547	1,622	1,848	--	127
Coffee, tea, cocoa, spices (mt)	1,776	1,868	1,940	1,868	144	4,777	4,883	6,099	5,400	376
Coffee, incl. products (mt)	1,128	1,128	1,223	1,160	77	3,300	3,244	4,400	3,800	227
Cocoa beans & products (mt)	451	539	507	525	50	1,058	1,285	1,189	1,200	109
Rubber & allied gums (mt)	809	799	801	800	92	854	680	615	600	79
Other	--	--	--	--	--	844	900	885	--	66
Total	--	--	--	--	--	18,916	19,740	20,875	20,000	1,744

*Fiscal years begin October 1 and end September 30. Fiscal year 1986 began Oct. 1, 1985 and ended Sept. 30, 1986. -- not available. 1/ Not included in total volume. 2/ Forecasts for footnoted items 3/-8/ are based on slightly different groups of commodities. Fiscal 1986 exports of categories used in the 1987 forecasts were: 2/ 413 thousand mt. 3/ 1,306 thousand mt. 4/ 9,648 million. 5/ 3,489 million, i.e. includes flour. 6/ 8,218 thousand mt. 7/ 6,439 million. 8/ 20,481 thousand mt. F = forecast.

Information contact: Steve MacDonald (202) 786-1621.

Table 31. U.S. Agricultural Exports by Region

Region & country	Fiscal years*				Feb	Change from year* earlier				Feb
	1984	1985	1986	1987 F	1987	1984	1985	1986	1987 F	1987
	$ million					Percent				
Western Europe	8,265	7,183	6,857	6,700	796	-9	-22	-5	-3	7
European Community (EC-12)	8,650	6,668	6,442	6,300	758	-9	-23	-3	-2	7
Belgium-Luxembourg	836	470	361	--	75	3	-44	-23	--	104
France	510	396	431	--	55	-1	-22	9	--	-6
Germany, Fed Rep.	1,260	900	1,001	--	174	-13	-29	11	--	35
Italy	771	677	693	--	67	-4	-12	2	--	-22
Netherlands	2,227	1,926	2,042	--	209	-21	-14	6	--	2
United Kingdom	790	628	628	--	48	-4	-20	0	--	-11
Portugal	702	502	308	--	19	10	-28	-39	--	-28
Spain, incl. Canary Islands	1,232	832	723	--	85	3	-32	-13	--	6
Other Western Europe	615	515	415	400	41	-10	-16	-19	0	9
Switzerland	311	232	128	--	19	-12	-26	-45	--	31
Eastern Europe	741	532	447	400	39	-10	-28	-16	0	-11
German Dem. Rep.	132	81	52	--	2	7	-39	-36	--	1,646
Poland	197	126	42	--	1	-15	-36	-66	--	66
Yugoslavia	180	137	134	--	10	-28	-24	-2	--	229
Romania	155	88	112	--	26	35	-43	27	--	-18
USSR	2,512	2,525	1,105	600	8	156	1	-56	-45	-96
Asia	15,209	11,933	10,498	10,700	880	12	-22	-12	2	2
West Asia (Mideast)	1,865	1,452	1,243	1,300	110	26	-22	-14	8	15
Turkey	222	129	111	--	9	693	-42	-13	--	-63
Iraq	423	371	321	--	27	31	-12	-13	--	22
Israel	351	300	255	--	15	20	-15	-15	--	39
Saudia Arabia	497	381	335	--	40	11	-23	-12	--	77
South Asia	867	599	517	400	33	-26	-31	-14	-2	-27
Bangladesh	157	205	94	--	9	3	31	-54	--	-49
India	376	129	90	--	16	-51	-66	-30	--	332
Pakistan	285	228	285	--	3	33	-20	25	--	-84
China	692	239	88	100	25	27	-65	-63	0	646
Japan	6,935	5,663	5,139	5,100	407	18	-18	-9	0	-4
Southeast Asia	1,218	842	725	800	59	1	-31	-14	14	23
Indonesia	438	204	172	--	12	7	-53	-16	--	12
Philippines	300	285	270	--	19	-21	-5	-5	--	1
Other East Asia	3,631	3,138	2,787	3,000	246	10	-14	-11	7	-1
Taiwan	1,408	1,342	1,108	--	87	14	-5	-17	--	-5
Korea, Rep.	1,816	1,400	1,277	--	124	6	-23	-9	--	-3
Hong Kong	407	396	398	--	35	18	-3	1	--	21
Africa	2,868	2,527	2,135	2,000	115	26	-12	-16	-5	-34
North Africa	1,542	1,207	1,402	1,400	84	6	-22	16	0	-43
Morocco	341	156	159	--	14	52	-54	2	--	-43
Algeria	162	220	330	--	14	-20	36	50	--	-61
Egypt	892	766	875	--	45	-3	-13	14	--	-48
Sub-Sahara	1,327	1,320	733	600	31	62	-1	-44	-14	14
Nigeria	345	367	158	--	2	4	6	-57	--	34
Rep. S. Africa	525	189	70	--	6	304	-64	-63	--	149
Latin America & Caribbean	5,279	4,570	3,599	3,900	229	9	-13	-21	8	-8
Brazil	438	557	444	--	21	10	27	-20	--	-47
Caribbean Islands	827	771	752	700	65	7	-7	-2	0	16
Central America	396	361	334	400	28	11	-9	-7	33	61
Colombia	220	238	137	--	6	-14	8	-42	--	-17
Mexico	1,966	1,566	1,115	1,400	67	11	-20	-29	27	-8
Peru	227	106	108	--	9	-12	-53	2	--	-34
Venezuela	778	721	493	--	23	26	-7	-32	--	-29
Canada	1,936	1,727	1,466	1,600	134	4	-11	-15	7	18
Oceania	216	204	216	200	18	-4	-6	6	0	-15
Total	38,027	31,201	26,325	26,000	2,221	9	-18	-16	-1	-9
Developed Countries	19,180	15,225	13,963	13,600	1,374	4	-21	-8	-3	5
Less Developed Countries	14,902	12,680	10,721	11,300	775	7	-15	-15	6	-9
Centrally Planned Countries	3,945	3,296	1,640	1,100	72	67	-16	-50	-31	-74

*Fiscal years begin October 1 and and September 30. Fiscal year 1986 began Oct. 1, 1985 and ended Sept. 30, 1986. F = forecast. -- not available.

Note: Adjusted for transshipments through Canada.

Information contact: Steve MacDonald (202) 786-1621.

Table 32.—Farm Income Statistics

	Calendar years										
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 P	1987 F
	$ billion										
1. Farm receipts	97.5	114.3	133.8	142.0	144.1	147.1	140.9	146.4	148.5	139	131 to 133
Crops (incl. net CCC loans),	48.6	53.2	62.3	71.7	72.5	72.4	67.0	69.2	72.7	63	54 to 56
Livestock	47.6	59.2	69.2	68.0	69.2	70.2	69.5	72.9	69.4	71	71 to 73
Farm related 1/	1.2	1.9	2.2	2.3	2.5	4.5	4.4	4.3	6.4	5	4 to 6
2. Direct Government payments	1.8	3.0	1.4	1.3	1.8	3.5	9.3	8.4	7.7	12	15 to 17
Cash payments	1.8	3.0	1.4	1.3	1.9	3.5	4.1	4.0	7.6	8	7 to 9
Value of PIK commodities	0.0	0.0	0.0	0.0	0.0	0.0	5.2	4.5	0.1	4	7 to 9
3. Total gross farm income (4+5+6)	108.8	128.4	150 7	149.3	166.3	163.4	152.4	174.4	166.6	158	154 to 156
4. Gross cash income (1+2) 2/	99.3	117.3	135 1	143.3	146.0	150.6	150.2	154.9	156.2	151	146 to 148
5. Nonmoney income 3/	8.4	9.3	10.6	12.3	13.8	14.1	13.2	13.3	11.5	10	8 to 10
6. Value of inventory change	1.1	1.9	5 0	-6.3	6.5	-1.3	-10.9	6.3	-1.1	-3	-4 to 0
7. Cash expenses 4/	71.4	84.2	101.7	109.1	113 2	113.8	113 0	115.6	112.1	102	96 to 98
8. Total expenses	88.9	103.2	123.3	133.1	139.4	140.7	139.5	141.7	136.1	125	119 to 121
9. Net cash income (4-7)	27.8	33.1	33.4	34.2	32.8	36.8	37.1	39.3	44.0	49	48 to 52
10. Net farm income (3-8)	19.9	25.2	27.4	16.1	26.9	22.7	13.0	32.7	30.5	33	33 to 37
Deflated (1982$)	29.5	34.8	34.9	18.8	28.6	22.7	12.5	30 3	27.3	29	27 to 30
11. Off-farm income	26.1	29.7	33.8	34.7	35.8	36.4	37.0	37.9	40.8	43	43 to 45
12. Loan changes 5/: Real estate	7.6	7.6	13.0	9.3	9.4	4.0	2.5	-0.8	-5.6	-8	-8 to -4
13. 5/: Nonreal estate	6.8	8.3	10.9	5.8	6.2	3.4	1.0	-0.8	-9.2	-10	-9 to -5
14. Rental income plus monetary change	3.5	4.1	6.3	6.1	6.4	6.4	5.7	7.8	8 0	7	5 to 7
15. Capital expenditures 5/	15.0	17.9	19.9	18.0	16.8	13.7	13.0	12.5	10.1	8	6 to 8
16. Net cash flow (9+12+13+14-15)	30.8	35.1	43.7	37.5	37.9	37.0	33.3	33.0	27.1	30	34 to 38

P = preliminary. F = midpoint of forecast range. 1/ Income from machine hire, custom work, sales of forest products, and other misc. cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food and imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, and farm household expenses. 5/ Excludes farm households. Totals may not add due to rounding.

Information contact: Richard Kodl (202) 786-1808.

Table 33.—Balance Sheet of the U.S. Farming Sector

	Calendar years										
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 P	1987 F
	$ billion										
Assets											
Real estate *	507.7	600.7	704.2	778.2	780.2	745.6	736.1	638.6	559.6	515	515
Non-real estate	149.0	183.0	213.9	224.0	225.0	232.2	220.4	216.5	211.9	196	196
Livestock & poultry	31.9	51.3	61.4	60.6	53.5	53.0	49.7	49.6	45.9	44	48
Machinery & motor vehicles	69.9	78.2	90.8	96.8	103.0	103.7	100.9	95.0	92.2	88	86
Crops stored	24.8	28.0	33.5	36.5	36.1	40.6	33.2	33.7	37.1	29	26
Financial assets	22.4	25.5	28.2	30.1	32.4	34.9	36.5	38.1	36.7	35	36
Total farm assets	656.7	783.7	918.1	1,003.2	1,005.2	977.8	956.5	856.1	771.4	711	711
Liabilities											
Real estate	58.0	65.6	78.5	87.9	97.2	101.2	103.7	102.8	97.3	90	83
Non-real estate	52.4	66.4	76.7	82.5	91.6	102.4	98.7	95.8	94.8	87	75
CCC loans	4.5	5.7	5.1	5.0	8.0	15.4	10.8	8.6	16.9	19	14
Other non-real estate	52 4	60.7	71.6	77.5	83.6	87.0	87.9	87.1	77.9	68	61
Total farm liabilities	114.9	131.9	155.2	170 4	188.8	203.6	202.4	198.7	192.1	177	158
Total farm equity	541.8	651.8	762.9	832.9	816.4	774.2	754.0	657.3	579.3	534	553
	Percent										
Selected ratios											
Debt-to-assets	17.5	16.8	16.9	17.0	18.8	20.8	21.2	23.2	24.9	24.9	22.2
Debt-to-equity	20.0	19.3	19.6	19.7	23.1	26.3	26.8	30.2	33.2	33.1	28.6
Debt-to-net cash income	412.3	398.2	464.4	497.7	576 1	553.0	545.5	505.8	436.2	361.2	316.0

* Excludes farm household. P = preliminary. F = forecast.

Information contact: Richard Kodl (202) 786-1808.

Table 34.—Cash Receipts from Farm Marketings, by State

Region State	Livestock & Products				Crops 1/				Total 1/			
	1985	1986	Jan 1987	Feb 1987	1985	1986	Jan 1987	Feb 1987	1985	1986	Jan 1987	Feb 1987
	$ million 2/											
North Atlantic												
Maine	244	247	22	21	138	134	18	20	382	380	40	41
New Hampshire	70	70	7	6	36	36	3	3	107	106	9	9
Vermont	352	352	33	33	34	36	2	2	386	388	35	34
Massachusetts	126	125	11	11	261	291	16	10	386	416	28	20
Rhode Island	14	14	1	1	62	63	3	3	76	77	4	4
Connecticut	204	204	17	17	151	162	28	8	355	366	46	25
New York	1,849	1,838	167	162	721	671	48	39	2,570	2,510	215	201
New Jersey	144	145	12	12	456	429	18	16	600	575	30	28
Pennsylvania	2,184	2,179	192	186	1,015	919	96	71	3,198	3,098	288	256
North Central												
Ohio	1,511	1,510	114	113	2,600	1,987	175	56	4,111	3,498	290	169
Indiana	1,728	1,730	134	132	3,064	2,174	155	58	4,792	3,905	289	191
Illinois	2,063	2,065	171	171	5,914	4,577	719	204	7,977	6,642	890	376
Michigan	1,231	1,232	100	99	1,698	1,403	136	54	2,929	2,635	236	153
Wisconsin	4,108	4,110	357	344	1,024	867	135	10	5,132	4,977	492	354
Minnesota	3,371	3,379	266	265	3,222	2,580	367	44	6,593	5,959	633	310
Iowa	4,811	4,878	393	404	4,581	3,974	820	274	9,393	8,852	1,212	678
Missouri	1,924	1,927	150	155	1,768	1,546	231	61	3,692	3,472	381	216
North Dakota	686	671	77	79	2,001	1,558	147	38	2,687	2,230	225	118
South Dakota	1,900	1,894	143	145	1,157	888	102	8	3,057	2,782	245	153
Nebraska	4,112	4,113	305	317	3,227	2,560	496	69	7,340	6,673	801	386
Kansas	3,264	3,262	311	322	2,555	1,920	280	52	5,819	5,182	591	373
Southern												
Delaware	352	352	36	36	134	117	4	4	487	469	39	40
Maryland	772	777	71	70	458	370	18	14	1,230	1,147	89	84
Virginia	1,062	1,063	84	83	629	489	28	18	1,691	1,552	112	101
West Virginia	192	192	12	11	83	71	7	4	248	263	18	15
North Carolina	1,947	2,016	165	161	1,981	1,560	58	26	3,928	3,576	222	187
South Carolina	415	414	36	33	627	430	24	8	1,042	844	61	41
Georgia	1,727	1,725	149	146	1,564	1,338	55	34	3,291	3,063	204	180
Florida	1,020	1,010	89	84	3,583	3,780	311	466	4,603	4,790	400	550
Kentucky	1,352	1,281	90	70	1,583	1,066	139	32	2,935	2,348	229	102
Tennessee	1,080	1,110	90	91	1,094	866	58	26	2,174	1,976	148	117
Alabama	1,301	1,303	106	107	781	560	40	17	2,082	1,864	146	124
Mississippi	1,010	1,019	84	86	1,234	705	77	-14	2,244	1,725	161	71
Arkansas	1,825	1,866	136	131	1,611	905	74	10	3,437	2,770	210	141
Louisiana	491	522	37	38	1,013	846	119	20	1,505	1,368	156	58
Oklahoma	1,726	1,744	137	142	956	738	33	26	2,681	2,482	170	168
Texas	5,441	5,386	331	337	3,926	3,008	291	156	9,366	8,394	621	493
Western												
Montana	802	803	87	92	422	475	59	8	1,224	1,278	147	100
Idaho	862	862	88	92	1,220	1,054	90	50	2,082	1,916	178	143
Wyoming	479	477	40	35	123	112	8	5	601	589	48	40
Colorado	2,019	2,017	159	168	1,098	878	78	28	3,117	2,895	237	196
New Mexico	718	718	73	77	374	309	18	13	1,092	1,027	91	90
Arizona	701	714	46	47	869	837	140	41	1,570	1,551	186	88
Utah	413	415	31	32	142	133	14	11	555	549	45	43
Nevada	144	144	14	15	81	73	8	8	225	217	22	22
Washington	926	926	80	80	1,906	1,799	133	111	2,833	2,725	213	191
Oregon	622	622	53	53	1,118	1,122	76	64	1,740	1,744	129	118
California	4,161	4,170	346	344	10,026	10,016	659	464	14,187	14,186	1,005	809
Alaska	8	8	1	1	19	21	1	1	27	29	2	2
Hawaii	83	82	7	7	462	497	42	38	545	579	49	45
United States	69,546	69,682	5,661	5,661	74,772	62,954	6,655	2,792	144,319	132,636	12,316	8,453

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period.
2/ Estimates as of the end of current month. Rounded data may not add.

Information contact: Roger Strickland (202) 786-1804.

Table 35.—Cash Receipts from Farming

	Annual						1986				1987	
	1981	1982	1983	1984	1985	1986	Feb	Oct	Nov	Dec	Jan	Feb
	$ million											
Farm marketings and CCC loans *	141,616	142,344	137,802	142,514	144,319	132,636	9,041	14,515	15,437	13,535	12,316	8,453
Livestock and products	69,151	70,249	69,453	73,049	69,546	69,682	5,063	6,830	6,743	5,611	5,661	5,661
Meat animals	39,748	40,917	38,893	40,832	38,185	38,259	2,793	4,090	3,941	3,083	3,016	3,137
Dairy products	18,095	18,234	18,757	17,944	18,135	18,135	1,380	1,516	1,483	1,544	1,599	1,549
Poultry and eggs	9,949	9,538	10,003	12,305	11,285	11,427	776	1,107	1,067	865	901	861
Other	1,358	1,560	1,800	1,967	1,941	1,861	105	116	252	118	145	113
Crops	72,465	72,095	68,349	69,465	74,772	62,954	3,978	7,685	8,693	7,924	6,655	2,792
Food grains	11,619	11,412	9,713	9,576	9,080	5,652	347	777	384	322	389	38
Feed crops	17,770	17,361	16,703	15,829	22,480	17,190	1,147	1,699	2,809	3,011	2,609	522
Cotton (lint and seed)	4,055	4,454	3,705	3,270	4,046	2,742	278	487	791	573	492	147
Tobacco	3,250	3,342	2,768	2,841	2,722	1,901	101	270	182	417	167	26
Oil-bearing crops	13,853	13,628	13,546	13,894	12,620	10,339	526	1,931	1,780	1,358	1,377	456
Vegetables and melons	8,772	8,113	8,525	9,226	8,604	8,830	565	874	462	452	731	556
Fruits and tree nuts	6,603	6,821	6,058	6,759	6,741	7,384	445	877	1,004	777	303	470
Other	6,543	6,964	7,330	8,071	8,479	8,916	569	770	1,280	1,015	588	577
Government payments	1,932	3,492	9,295	8,430	7,704	11,398	699	821	434	1,961	479	1,489
Total	143,548	145,836	147,097	150,944	152,023	144,034	9,740	15,336	15,871	15,496	12,795	9,952

* Receipts from loans represent value of commodities placed under CCC loans minus value of redemptions during the month.

Information contact: Roger Strickland (202) 786-1804.

Table 36.—Farm Production Expenses

	Calendar years									
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 P
	$ million 2/									
Feed	13,967	16,036	19,314	20,971	20,855	18,592	21,725	19,850	19,588	18,206
Livestock	7,072	10,150	13,012	10,670	8,999	9,696	8,814	9,498	8,991	9,536
Seed	2,484	2,638	2,904	3,220	3,428	3,172	2,987	3,447	3,369	2,984
Farm-origin inputs	23,523	28,824	35,230	34,861	33,282	31,460	33,526	32,795	31,948	30,725
Fertilizer	6,529	6,619	7,369	9,490	9,409	8,018	7,067	7,429	7,258	5,787
Fuels and oils	4,356	4,609	5,635	7,879	8,570	7,888	7,503	7,143	6,584	4,790
Electricity	1,069	1,389	1,447	1,526	1,747	2,041	2,146	2,166	2,073	2,090
Pesticides	1,938	2,656	3,436	3,539	4,201	4,282	4,161	4,768	4,965	4,331
Manufactured inputs	13,892	15,273	17,887	22,434	23,927	22,229	20,877	21,506	20,882	16,998
Short-term interest	4,203	5,167	6,868	8,717	10,722	11,349	10,615	10,396	8,821	7,110
Real estate interest	4,329	5,060	6,190	7,544	9,142	10,481	10,815	10,733	9,878	8,611
Total interest charges	8,532	10,227	13,058	16,261	19,864	21,830	21,430	21,129	18,698	15,721
Repair and operation	5,430	6,638	7,280	7,648	7,587	7,730	7,543	7,850	7,450	7,318
Hired labor	7,131	8,279	8,982	9,294	8,932	10,182	9,660	9,838	10,347	10,255
Machine hire and custom work	1,682	1,776	2,063	1,823	1,984	2,025	1,896	2,170	2,185	1,791
Dairy deduction	0	0	0	0	0	0	633	656	163	431
Other operating expenses	6,129	7,703	9,047	9,378	9,865	10,700	10,646	10,860	11,522	10,958
Total operating expenses	20,372	24,396	27,732	28,143	28,368	30,637	30,378	31,374	31,667	30,753
Depreciation	15,493	16,963	19,345	21,474	23,573	23,886	23,491	23,020	21,101	19,784
Taxes	3,660	3,603	3,871	3,891	4,246	4,394	4,323	4,384	4,423	4,471
Net rent to non-operator landlord	3,412	3,963	6,182	6,075	6,184	6,219	5,441	7,504	7,387	6,646
Other overhead expenses	22,565	24,529	29,398	31,440	36,003	34,499	33,255	34,908	32,911	30,901
Total production expenses	88,884	103,249	123,305	133,139	139,444	140,654	139,466	141,712	136,108	125,098

1/ Includes operator household. 2/ Totals may not add due to rounding. P = preliminary.

Information contact: Richard Kodl (202) 786-1808.

Table 37.—CCC Net Outlays by Commodity & Function

	Fiscal years										
	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987E	1988E
	$ million										
Commodity											
Feed grains	2,288	1,144	1,286	-533	5,397	6,815	-758	5,211	12,211	13,141	10,367
Wheat	844	308	879	1,543	2,238	3,419	2,536	4,691	3,440	3,764	3,841
Rice	-66	49	-76	24	164	664	333	990	947	833	945
Upland cotton	224	141	64	336	1,190	1,363	244	1,553	2,142	1,439	740
Tobacco	98	157	-88	-51	103	880	346	455	253	-228	-222
Dairy	240	24	1,011	1,894	2,182	2,528	1,502	2,085	2,337	1,295	1,103
Soybeans	31	4	116	87	169	288	-585	711	1,597	819	158
Peanuts	-39	27	28	28	12	-6	1	12	32	4	2
Sugar	395	313	-405	-121	-5	49	10	184	214	-351	--
Honey	3	-2	9	8	27	48	90	81	89	72	62
Wool	33	39	35	42	54	94	132	109	123	131	143
Other	1,608	1,407	-107	780	122	2,710	3,463	1,601	2,455	3,996	4,135
Total	5,656	3,612	2,752	4,036	11,652	18,851	7,315	17,683	25,841	25,262	21,272
Function											
Price support loans	1,377	2	-66	174	7,015	8,438	-27	6,272	13,628	12,620	5,323
Direct payments	2,268	1,811	418	1,030	1,491	3,600	2,117	7,827	6,746	5,536	8,858
Purchases	100	10	1,681	1,602	2,031	2,540	1,470	1,331	1,670	612	-156
Producer storage payments	216	247	254	32	679	964	268	329	485	562	664
Processing, storage, & transportation	89	128	259	323	355	665	639	657	1,013	1,595	2,083
Operating expense	101	97	157	159	294	328	362	346	457	537	530
Interest expenditure	-106	238	518	220	-13	3,525	1,064	1,435	1,411	1,550	1,511
Export programs	948	417	-669	-940	65	398	743	134	102	544	481
Other	662	662	200	1,436	-265	-1,607	679	-648	329	1,706	1,978
Total	5,656	3,612	2,752	4,036	11,652	18,851	7,315	17,683	25,841	25,262	21,272

E = Estimated in the President's FY 1988 budget. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 447-5148

Transportation

Table 38.—Rail Rates; Grain & Fruit/Vegetable Shipments

	Annual			1986				1987		
	1984	1985	1986 P	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Rail freight rate index 1/ (Dec 1984=100)										
All products	99.3	100.0	100.7	101.0	100.4	100.5	99.6 P	99.7 P	99.7 P	99.7 P
Farm Products	98.7	99.0	99.6	99.7	99.1	99.1	98.4 P	98.5 P	98.5 P	98.7 P
Grain	98.6	98.3	98.9	99.0	98.5	98.5	97.6 P	97.6 P	97.8 P	98.0 P
Food Products	99.1	100.1	99.9	100.9	99.2	99.2	98.2 P	98.4 P	98.4 P	98.4 P
Grain										
Rail carloadings (thou cars) 2/	27.2	22.9	24.2	20.6	32.8	29.8	24.8	23.0	26.7 P	27.3 P
Fresh fruit & vegetable shipments										
Piggy back (thou cwt) 3/ 4/	570	602	630	618	524 P	486 P	479 P	527 P	543 P	493 P
Rail (thou cwt) 3/ 4/	640	532	533	557	554 P	705 P	740 P	663 P	518 P	533 P
Truck (thou cwt) 3/ 4/	8,006	8,298	8,651	8,797	8,162 P	8,511 P	8,345 P	8,180 P	8,454 P	8,541 P
Cost of operating trucks hauling produce 5/										
Owner operator (cts/mile)	115.5	116.1	113.1	113.0	111.8	112.4	113.0	114.9	115.0	115.1
Fleet operation (cts/mile)	115.3	116.7	113.6	113.4	112.4	113.0	113.5	115.2	115.2	114.9

1/ Department of Labor, Bureau of Labor Statistics, revised March 1985. 2/ Weekly average; from Association of American Railroads. 3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1985 and 1986. 5/ Office of Transportation, USDA. P = Preliminary.

Information contact: T.Q. Hutchinson (202) 786-1840.

Indicators of Farm Productivity

Table 39.—Indexes of Farm Production Input Use & Productivity

(See the Jan.-Feb. 1987 issue.)

Information contact: James Johnson (202) 786-1800.

Table 40.—Supply & Use of Fertilizer

(See the June 1986 issue.)

Information contact: Paul Andrilenas (202) 786-1456.

Table 41.—Supply & Use of Major Pesticides

(See the Oct. 1986 issue.)

Information contact: Stan Daberkow (202) 786-1458.

Food Supply and Use

Table 42.—Per Capita Food Consumption Indexes (1967 = 100)

(See the Dec. 1986 issue.)

Information contact: Harry Harp (202) 786-1870.

Table 43.—Per Capita Consumption of Major Food Commodities (Retail Weight)

(See the Dec. 1986 issue.)

Information contact: Harry Harp (202) 786-1870.

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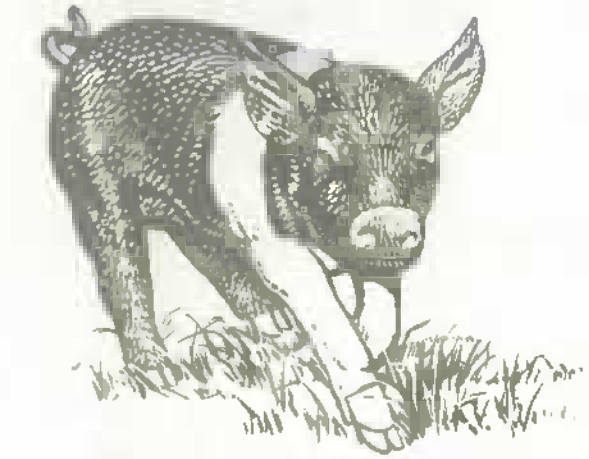

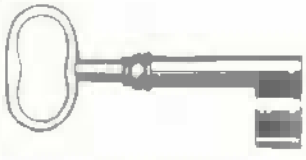

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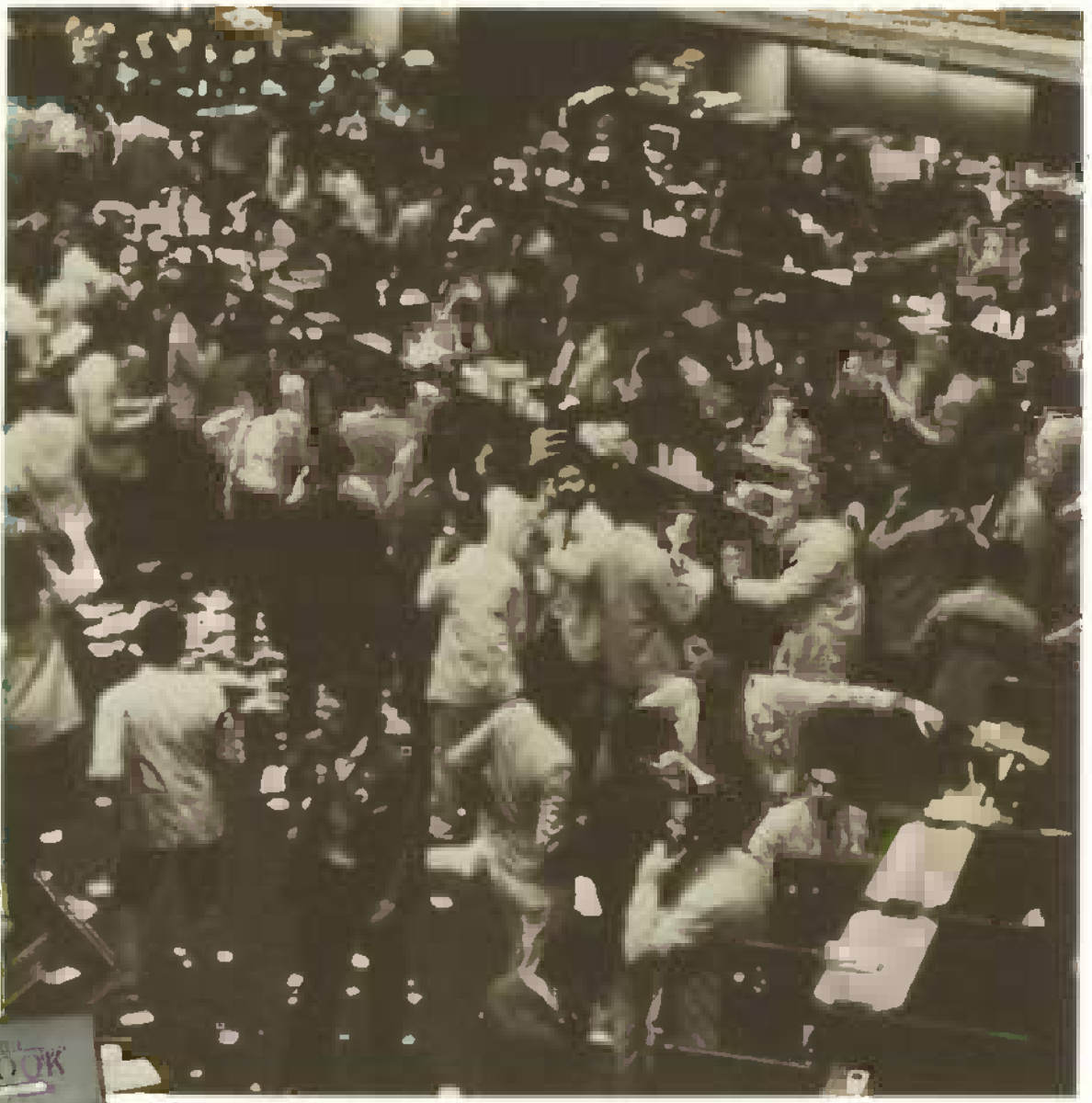

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